

**AN ANALYSIS OF PUPIL PERFORMANCE
ICSE EXAMINATION 2013**

**COUNCIL FOR THE INDIAN SCHOOL CERTIFICATE EXAMINATIONS,
NEW DELHI**

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FOREWORD

This document of the Analysis of Pupil Performance at the ICSE (Class-10) Examination is a unique tool for retrospection for both, teachers and students. It has grown and evolved over the years to provide feedback to all concerned in terms of the strengths and weaknesses of the candidates in handling the ICSE examinations.

We commend the work of Mr. Lancelot J Fuller, Deputy Secretary, and the ICSE Division of the Council who have painstakingly prepared this analysis. We are grateful to the examiners who have contributed through their comments on the performance of the candidates under examination as well as for their suggestions to teachers and students for the effective transaction of the syllabus.

We hope the schools will find this document useful in more ways than one. We invite comments from schools on further improving its utility and quality.

September 2013

**Gerry Arathoon
Chief Executive & Secretary**

INTRODUCTION

The Council for the Indian School Certificate Examinations has published the “Analysis of Pupil Performance” annually since 1994. This document is reviewed every year and changes are incorporated based on suggestions received from various quarters which include experts in the field of education, Heads of Schools and teachers, in order to make the analysis more useful and meaningful.

This document comprises both, a quantitative as well as a qualitative analysis of the performance of pupils at the ICSE examinations. The Analysis of Pupil Performance has been carried out for the most studied subjects that are largely ascribed to, by the schools. The purpose of this document is to give teachers and students a macro view of the overall performance of all candidates who have taken the examination and examiners’ comments on each question. It is hoped that this would enable teachers and students to understand the assessment of the ICSE examinations better and help both, teachers and students, in the teaching – learning process, more effectively.

The qualitative analysis seeks to provide a transparent look at the assessment process in order to enhance the effectiveness of the entire assessment procedure. Once the process of the evaluation of scripts is over, examiners are requested to contribute detailed comments on the performance of candidates for each question. The comments include the examiners’ response on what constitutes a good answer; common errors made by candidates while answering the questions; the questions that appeal to students and the overall performance by the students.

The quantitative analysis is based on the overall performance of all the students who took the examination. An analysis of the percentage of students who obtained marks in different mark ranges is also included.

Mr. Richard Ellis, Mr. Samir Kumar, Mr. M. Gopal, Mr. C.M. Thomas, Mrs. Liza George and Mrs. Namita Bajaj are to be commended for their meticulous and diligent effort in preparing this reference tool for both, teachers and students.

September 2013

**Lancelot J Fuller
Deputy Secretary**

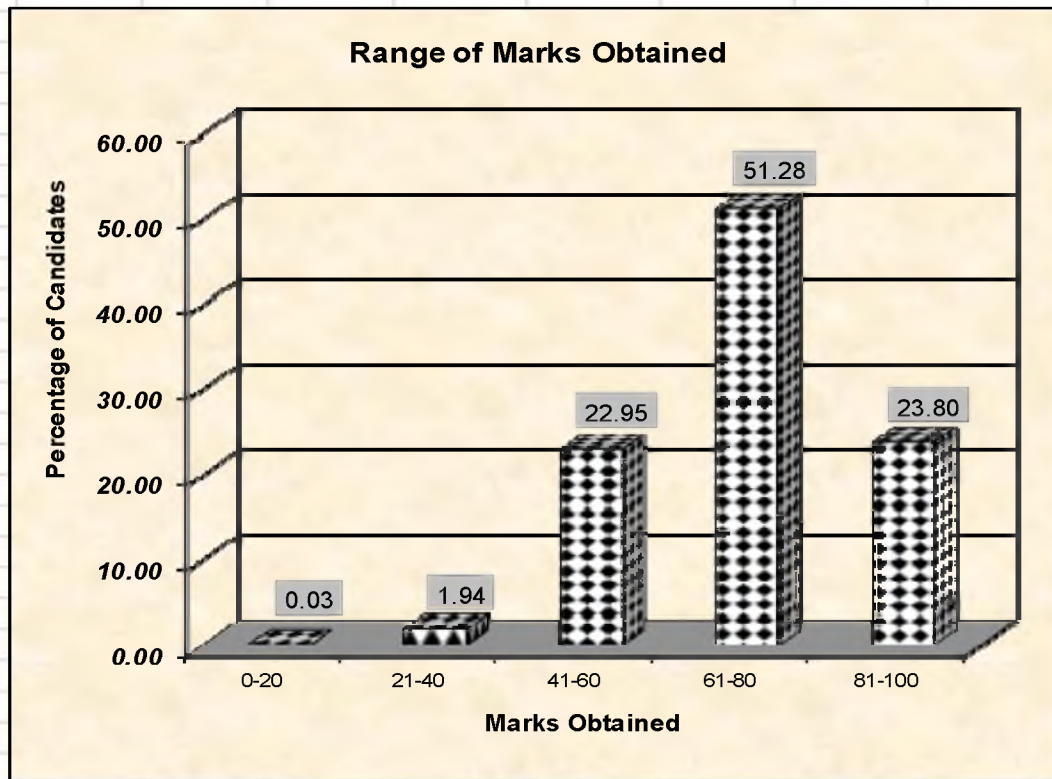
ENGLISH

STATISTICS AT A GLANCE

Total Number of students who took the examination	140,877
Highest Marks Obtained	97
Lowest Marks Obtained	15
Mean Marks Obtained	69.92

Percentage of Candidates according to marks obtained

Details	Mark Range				
	0-20	21-40	41-60	61-80	81-100
Number of Candidates	46	2727	32336	72242	33526
Percentage of Candidates	0.03	1.94	22.95	51.28	23.80
Cumulative Number	46	2773	35109	107351	140877
Cumulative Percentage	0.03	1.97	24.92	76.20	100.00



ENGLISH LANGUAGE

ENGLISH Paper – 1

I. ANALYSIS OF PERFORMANCE

Question 1

(Do not spend more than 35 minutes on this question.)

Write a composition (350 - 400 words) on any *one* of the following:

[25]

- (a) Write an original short story that begins with the words: “In the background I could hear an awful commotion, men’s voices raised and women screaming.”
- (b) ‘Boarding schools are far better than day schools for the all-round education of a child’. Express your view either *for* or *against* this statement.
- (c) You were on a school trip and were on your way back to the hotel late one night when your school bus, full of children, broke down in a lonely area. Describe what you saw and experienced as you looked around. How was the problem solved?
- (d) Teaching someone else how to do something can be a rewarding experience. Think of a skill that you have helped someone to develop. Perhaps you taught someone how to swim or to bake a cake, or helped someone learn how to study more effectively. Narrate the events that made up the process of teaching the skill, and say what made the experience important and memorable for you.
- (e) Study the picture given below. Write a story or a description or an account of what it suggests to you. Your composition may be about the subject of the picture or you may take suggestions from it; however, there must be a clear connection between the picture and your composition.



Examiners' Comments

- (a) Most candidates attempted this question and surprisingly a majority related it to the Delhi Nirbhaya case. Although they could not explain why there was a commotion, what was making men raise their voices and women scream, they artificially linked it to the Nirbhaya case and focused on crimes against women. A small majority described the commotion caused by a house on fire. Candidates have not been taught that they must begin with the given lines and that the story must be original. Candidates have not understood that there must be a natural link between the given lines and the rest of the story, so that the story is cohesive.
- (b) This was a popular choice and many candidates attempted it. The topic was well within the scope of their experience. Candidates were able to argue feelingly either for or against the topic. However, some candidates mistook the term "Boarding schools" for "Board Exam." As usual, there were many candidates who argued equally on both sides and lost marks because of their inability to logically build up an argument favouring either for or against. In some cases the argument was based on emotion more than on logic and reason.
- (c) Although this was a popular choice and many attempted this question, most of them gave a detailed account of the planning of the trip, the journey, the excitement and left out what they saw and experienced after the bus broke down. Candidates lost marks because they failed to write about the resolution to the problem. Obviously, they did not read the question entirely, or during the course of the exercise they lost track of areas the composition should have covered.
- (d) This composition clearly had two parts. One was the joy of teaching and the other the experience of the learner. Very few candidates covered both angles. A major issue in this composition was the incorrect use of tense. Many candidates treated the exercise in the narrative and not in the reflective aspect. So

Suggestions for teachers

- Students must be taught the difference between a short story and first person account. In the short story, the narrator can take any form or stage. In the first person account, students must write from within the experience of a fifteen year old child.
- When an opening sentence is given, the sentence must be used in its entirety.
- Although there is a temptation to "learn up" topics that are currently being discussed in the news or on television students must be taught that the examination of the English language seldom regurgitates hackneyed topics.
- Encourage students to watch debates and talk shows on television/online. Replay audio recordings of good debates and analyse what they have learnt from them.
- Hold class level debates and encourage students to express views, opinions and to justify them.
- As classroom activity, a given topic could be broken up into various components
- Engage the class in 'What if activities.
- Students should be set writing tasks that require the first person perspective.
- Devote class time to doing oral picture composition - use pictures that stimulate discussions, encourage students to interpret them in as many ways as possible; a five minute feedback/showing of ideas is a productive way to ensure that they recognize the possibility of a range of interpretations.

details were given about the act of teaching but candidates did not say why it was memorable or rewarding. A good many candidates missed the point of it being a first person account and wrote from the point of view of an adult.

- (e) Surprisingly, this topic was not a popular choice and those who attempted it failed to mention the elephant. Many essays have clearly been prepared on general themes like floods, protection of environment, care for animals, etc. and these were clumsily "married" to the given picture. Many candidates continue to give a mere description of the picture.

MARKING SCHEME

Question 1.

- (a) The story must be original and must begin with the given sentence. The story may take any form but should convey why there was a commotion and what was making the men raise their voices and women scream. -2 if the story does not begin with the given sentence. -1 if only part of the sentence is used. Only if the story is blatantly unoriginal -25% of the marks obtained.
- (b) Views for or against the motion are to be accepted. The candidate should take a clear stand and give valid reasons for whatever stand he/she takes regarding the topic *either for or against* the statement. - Upto 20% if marks obtained if no clear stand is taken. (Be very sure that no stand is taken before you minus). [What was seen and heard? How was the problem solved?]
- (c) The events should be interesting and should be described in detail, the fear, the night sights and the ultimate rescue or help should be described.
- (d) A personal experience - The particular event or situation in which the candidate taught another person how to do something/ develop a skill must form the core of the essay. The candidate should focus on the events that made up the process of teaching the skill, and clearly narrate what made the experience important and memorable for him/ her. How the person was taught?
- (e) Accept a broad interpretation but keep in mind that there must be a clear connection between the picture and the composition. There must be a reference to the elephant and the children on it.

Question 2

(Do not spend more than 20 minutes on this question.)

Select *one* of the following:

[10]

- (a) You will soon have to make a decision about the subjects that you wish to study in classes XI and XII. Write a letter to your Grandfather telling him about the subjects that you plan to take up. Be sure to explain the reason for your choice and how you think these subjects would help you in the future.
- (b) The children in your neighbourhood are forced to play on the street for want of a proper play area. Write a letter to the Editor of a popular newspaper, pointing out the need for a playground in your neighbourhood. Give reasons why you think a play area is necessary and point out how it would benefit everyone who lives in that area.

Examiners' Comments

(a) Format

Currently most schools are aware of the correct format however many candidates committed errors. A number of candidates lost marks because of incorrect training. Unfortunately, in many cases there was a tendency to use the vernacular term for Grandfather - "Dadaji, Nanaji, Tatha, Dadu".

Content:

Most candidates asked for advice instead of stating their choice of subjects. Candidates failed to specify how the subjects would help them in future.

Expression:

Some candidates wrote long letters and thereby penalized themselves by lack of time in writing other answers.

(b) Format:

Incorrect formatting led to loss of marks. Candidates were unable to understand the difference between Dear Sir - Yours faithfully and very often wrote Respected Sir and Yours obediently.

Content:

Most candidates wrote on problems that children faced due to lack of a play area and not on the need for a play area or how would it benefit the neighbourhood. Those who gave reasons repeated the points. Therefore the answers remained incomplete.

Expression:

Overlong letters which led to rambling and repetition.

Suggestions for teachers

- Drill work for format to be an essential and integral part of Language classes from Class VII upwards This has to be done thoroughly that it becomes a habit. The teaching of the drafting of a letter must adopt one type of format, i.e.. indented, block or entirely on the left hand side of the page and it should be continued on a regular basis.
- Discuss questions on letter writing and train children to underline those points in the question which must be addressed in the body.
- Teach students to write to the point and to avoid rambling and repetition in this exercise.

MARKING SCHEME

Question 2.

Ensure that the format is correct and that the following points of each letter are clearly brought out.

a) **Informal letter**

- i) ***What?*** [Specify the subject/ group of subjects]
- ii) ***Why?*** [reason why the subject(s) appeal to candidate]
- iii) ***How*** will choice help candidate in future opportunities/ career options?

b) **Formal Letter**

- i) ***Why*** the park is necessary – children need safe place to play/ would beautify the vicinity and neighbourhood/trees and plants would help lessen environmental pollution etc.

(Any two reasons)

ii) **How** it would benefit the neighbourhood – foster inter-personal skills and encourage cooperation/ build a friendly family neighbourhood/ would enable adults and children to pursue physical activities that would keep them fit (Any two reasons)

Expression: (both **Formal** and **Informal** letters):

Ensure a correlation between essay grade and letter expression

Question 3

Read the following passage carefully and answer the questions that follow:

There were other boys in Manjari village, but Bisnu was the only one who went to school. His mother would not have fussed if he had stayed at home and worked in the fields. That was what the other boys did; all except lazy Chittru, who preferred fishing in the stream or helping himself to the fruit off other people's trees. But Bisnu went to school. He went because he wanted to. No one could force him to go; and no one could stop him from going. He had set his heart on receiving a good schooling. He wanted to read and write as well as anyone in the big world and so he walked to school every day. 5

A colony of langoors lived in the forest. They fed on oak leaves, acorns, and other green things, and usually remained in the trees, coming down to the ground only to play or sun themselves. They were beautiful, supple-limbed animals, with black faces and silver-grey coats and long, sensitive tails. They leapt from tree to tree with great agility. The young ones wrestled on the grass like boys. 10

A dignified community, the langoors did not have the cheekiness or dishonest habits of the red monkeys of the plains; they did not approach dogs or humans. But they had grown used to Bisnu's comings and goings and did not fear him. Some of the older ones would watch him quietly, a little puzzled. They did not go near the town; because the boys threw stones at them. And anyway, the forest gave them all the food they required. 15

Coming from another direction was a second path, and at the junction of the two paths Saru was waiting for him. Saru came from a small village about three miles from Bisnu's and closer to the town. 20

They hailed each other, and walked along. They often met at this spot, keeping each other company for the remaining two miles.

There was a panther in our village last night,' said Sarru.

This information interested but did not excite Bisnu. Panthers were common enough 25
in the hills and did not usually present a problem except during the winter months,
when their natural prey was scarce.

'Did you lose any animals?' asked Bisnu.

'No. It tried to get into the cowshed but the dogs set up the alarm. We drove it off.'

'It must be the same one which came around last winter. We lost a calf and two dogs 30
in our village.'

'Wasn't that the one the shikaris wounded? I hope it hasn't become a cattle-lifter.'

'It could be the same. It has a bullet in its leg. These hunters are the people who cause
all the trouble. They think it's easy to shoot a panther. It would be better if they missed
altogether, but they usually wound it.' 35

'And then the panther's too slow to catch the barking-deer and starts on our own
animals.'

'We're lucky it didn't become a man-eater. Do you remember the man-eater six years
ago? I was very small then. My father told me all about it. Ten people were killed in
our valley alone. 40

'What happened to it?'

'I don't know. Some say it poisoned itself when it ate the headman of the village.'

Bisnu laughed. No one liked that old villain. They linked arms and scrambled up the
stony path to school. 45

(a) Give the meaning of each of the following words as used in the passage. One word
answers or short phrases will be accepted.

(i) agility (*line 13*)

(ii) hailed (*line 24*)

(iii) villain (*line 48*)

[3]

(b) Answer the following questions briefly in your own words.

(i) How was Chittru different from other boys?

[2]

(ii) What was Bisnu's ambition?

[2]

- (iii) What information did Sarru give Bisnu? [2]
- (iv) How did the information affect Bisnu? [2]
- (v) Why did the panther become a cattle-lifter? [2]
- (vi) What joke does Sarru make? [2]
- (c) (i) In not more than 60 words describe what the narrator tells us about the behaviour of the langoors. [8]
- (ii) Give a title to your summary in 3 (c). Give a reason to justify your choice. [2]

Examiners' Comments

- (a) Despite the vocabulary being simple and words of everyday use very few candidates scored full marks. Those who answered correctly wrote the meaning in a different part of speech and hence lost half a mark. Some candidates used the words in sentences instead of writing the meaning.
- (b) Many candidates lifted answers straight from the text. Some candidates found it difficult to understand the joke referred to in question 3 (vi).
- (c) A few candidates tended to stray from the question and included irrelevant details. Many wrote titles either lifted from the question or ones that suited the entire passage. A good number did not use a grid - they exceeded the word limit and tried to squeeze more than one word into each cell. Many failed to justify the titles they had written.

Suggestions for teachers

- Students have not inculcated the habit of reading hence their vocabulary is restricted to the words they encounter in text books.
- Use of class and school libraries must be encouraged with students being taught not only to read but to read between lines and infer implied meaning
- Students should be taught to infer word meanings from context and by looking for clue words in the sentence.
- Students are to be encouraged to read short stories if not a novel!
- The classroom work in comprehension can be divided into Vocabulary/ Questions and Answers / Summary writing and practiced as three separate modules.
- Exposure in class to different styles of writing.
- Teach summary writing as a separate classroom activity
- Insist on adhering to word limits and use of a grid for the final draft.
- Teach students to choose titles appropriate to the summary and to give a logical justification for their choice.

MARKING SCHEME**Question 3.**

- (a) Give the meanings of the following words as used in the passage. One word answers or short phrases will be accepted.
- (i) agility - skill
 - (ii) hailed - greeted, welcomed
 - (iii) villain - evil person.
- (b) (i) Chittru did not work like other boys / he fished in other peoples' streams and stole fruits.
(ii) He wanted to read and write. He had set his heart on receiving a good scholarship.
(iii) Sarru told Bisnu that a panther/had come to their village that night.
(iv) The information interested but did not excite Bisnu / Panthers were common in the hills.
(v) A panther if wounded cannot hunt / so it attacks cattle and people.
(vi) Sarru jokes that the Panther poisoned itself / when it ate the village headman / the headman was so wicked.
- (c) (i) 1. langoors lived in the forest 2. Fed on leaves, acorns, green things 3. remained in trees. 4. played or sunned themselves 5. Leapt from tree to tree 6. Young ones wrestled like boys 7. Dignified, not cheeky or dishonest 8. Did not approach dogs or humans. 9. Grown used to Bisnu's coming and goings / did not fear him. 10. Oldest ones would watch him quietly – puzzled. 11. Did not go near towns. 12. All that they needed they got from the forest.
(ii) Any apt title. Reason to justify the choice.

Question 4

- (a) Fill in each of the numbered blanks with the correct form of the word given in brackets. Do not copy the passage, but write in correct serial order the word or phrase appropriate to the blank space.

Example:

(0) A woman _____ (wait) at an airport one night, with several long hours before her flight.

Answer: was waiting.

She (1) _____ (hunt) for a book in the airport shops, (2) _____ (buy) a bag of cookies and found a place to sit. She (3) _____ (engross) in her book but happened to see that the man sitting beside her, bold as could be, grabbed a cookie or two from the bag in between, which she tried to ignore to avoid a scene. So she (4) _____ (munch) the cookies and watched _____ the clock, as the gutsy thief diminished her stock. She (5) _____ (get) _____ more irritated as the minutes ticked by, thinking, "If I wasn't so nice, I (6) _____ (black) his eye. With each cookie she took, he took one too. _____ When only one was left, she wondered what he would do. With a smile _____ on his face, and a nervous laugh, he (7) _____ (take) the last cookie and broke it in half. He offered her half, as he ate the other. She had never

known she could be so angry and turned to gather her belongings. As she reached for her baggage, she gasped with surprise, there was her bag of cookies, in front of her eyes. If mine are here, she moaned in despair, the others were his, and he (8) _____ (try) to share. _____

[4]

(b) Fill in the blanks with an appropriate word:

- (i) She takes a lot of trouble _____ her work.
- (ii) Our English friends have taken _____ Indian food quite quickly.
- (iii) He got an A+ _____ the Mathematics test.
- (iv) He jumped _____ the river to save his friend from drowning.
- (v) Always be prepared _____ a surprise test.
- (vi) She hid _____ the cupboard and gave everyone a fright.
- (vii) She is fond _____ pets.
- (viii) The brothers quarrelled _____ themselves for their father's property.

[4]

(c) Join the following sentences to make one complete sentence **without using** *and*, *but* or *so*.

- (i) We had better get ready now. We may not have time to reach the airport.
- (ii) Mr. Liew has been sick. He has been so since he came back from Japan.
- (iii) The debating teams were very happy. Both were declared joint-champions.
- (iv) He escaped from the prison. He looked for a place where he could hide.

[4]

(d) Re-write the following sentences according to the instructions given after each. Make other changes that may be necessary, but do not change the meaning of each sentence.

- (i) These windows need cleaning again.
(Begin: These windows will.....)
- (ii) My mother said I could go with you only if I returned home by five o' clock.
(Use: as long as)
- (iii) It doesn't matter which chemical you put into the mixture first, the results will be the same.
(Use: difference)
- (iv) Who does this pen belong to?
(Begin: Do you know.....)
- (v) Heavy rain has caused the cancellation of the outdoor garden party.
(Begin: Due.....)
- (vi) I've never seen so many people in this building before.
(Begin: This is.....)
- (vii) If we light the fire, the rescuers will see us.
(Begin: We will.....)

(viii) Only a few books were remaining on the shelf when we left.

(Begin: Most.....)

[8]

Examiners' Comments

- (a) Most candidates were able to do this exercise correctly. However, the common errors were the use of the continuous in place of simple inserting or adding words that are not a part of the passage, either before or after the given word should be discouraged e.g., munched on.
- (b) Most candidates performed well in this sub section. Some however made errors with those sentences that involved the use of idioms or phrasal verbs. The most common mistakes were use of (i) 'of/about' in place of 'over/with' (ii) 'up' instead of 'to' (iv) 'across' instead of 'into' (viii) 'between' instead of 'among'.
- (c) The rubric was often disregarded and the candidates used and, but and so although they were specifically asked not to. The sentences were joined without any attention to meaning - with regard to cause and effect, time, etc.
- (d) Though the questions seemed simple the performance of the candidates was unsatisfactory. A proper understanding of the meaning was not evident in the answers. A number of errors in syntax, spelling and punctuation was the cause of some loss of marks.

Suggestions for teachers

- Extensive drilling required to gain absolute confidence in answering the question.
- Adopt a structural approach in the teaching of grammar. Repeated practice in the transformation of simple, compound and complex sentences is helpful.
- Initialize teaching rules related to Active/Passive; Direct/Indirect: Degrees of Comparison from Class VII onward.
- Do not sacrifice Language classes to complete Literature syllabus.
- The use of grammar games, tell-a-tale, scrabble and crossword will go a long way in enhancing correctly spoken English.

MARKING SCHEME

Question 4

- (a) Fill in each of the numbered blanks with the correct form of the word given in brackets. Do not copy the passage, but write in correct serial order the word or phrase appropriate to the blank space.
 - 1. hunted
 - 2. bought
 - 3. was engrossed
 - 4. munched
 - 5. was getting
 - 6. would blacken
 - 7. took
 - 8. had tried/ tried
- (b) Fill in the blanks with an appropriate word:
 - (i) over
 - (ii) to
 - (iii) in
 - (iv) into
 - (v) for
 - (vi) behind / inside
 - (vii) of

- (viii) amongst.
- (c) Join the following sentences to make one complete sentence **without using and, but or so**:
- (i) We had better get ready now, otherwise we may not have time to reach the airport.
 - (ii) Mr. Liew has been sick since coming back from Japan.
 - (iii) The debating teams were very happy as both were declared joint-champions.
 - (iv) Escaping from prison, he looked for a place where he could stay.
- (d) Re-write the following sentences according to the instructions given after each. Make other changes that may be necessary, but do not change the meaning of each sentence.
- (i) These windows will have to be cleaned again.
 - (ii) My mother says I can go with you as long as I return home by 5 p.m.
 - (iii) It makes no difference which chemical you put into the mixture first, the results will be the same.
 - (iv) Do you know whose pen this is? / Do you know whom this pen belongs to?
 - (v) Due to the heavy rain, the garden party has been cancelled.
 - (vi) This is the first time I have seen so many people in this building.
 - (vii) We will be seen by the rescuers if we light the fire.
 - (viii) Most of the books had been sold by the time we left./ by the time we were gone.

Topics found confusing/difficult:

- Candidates were unable to write an original short story and simply 'married' the Delhi Nirbhaya case with the topic given.
- Children described the school trip in great detail, the journey, the fun but did not realize that this was a descriptive essay and left out the sights and sounds of the night and details of how the rescue was planned.
- Instead of informing the Grandfather about the choices of subjects that the grandchild has made the children seemed to be asking for advice on what stream to choose.
- Candidates did not inform their editor about the needs and benefits of a playground. They merely mentioned that a playground is necessary.

Suggestions for students

- Practise format of letter separately and frequently.
- Understand clearly what is being asked to write about.
- Practise grammar exercises regularly.
- Reading is an absolute must and it is to be done on a regular basis. Apart from being extremely enjoyable it improves the learning process too.
- Write accurately and concisely what is asked. Remember to write in your own words.

LITERATURE IN ENGLISH

ENGLISH Paper – 2

II ANALYSIS OF PERFORMANCE

SECTION A - DRAMA

As You Like It : Shakespeare

Question 1.

Read the extract given below and answer the questions that follow:

Oliver: Farewell, Good Charles. [*exit Charles*] Now will I stir this gamester. I hope I shall see an end of him; for my soul, yet I know not why, hates nothing more than he.

- (i) Who is Charles? Why had he come to Oliver? [3]
- (ii) Who is the gamester referred to? What does Oliver think of the gamester in the lines that follow the extract? [3]
- (iii) What had Oliver told Charles about the gamester? [3]
- (iv) What news had Charles given Oliver about Duke Senior and Rosalind? [3]
- (v) Mention any four qualities of Orlando that have appealed to you. Give reasons from the text to justify your answer. [4]

Examiners' Comments

- (i) A few candidates mentioned Charles merely as the 'wrestler', instead of 'court wrestler' or 'Duke's wrestler'. In the sub part of the question they wrote that Charles had come there because Oliver had sent for him.
- (ii) In the sub part of the question, many candidates wrote about what Oliver told Charles about Orlando instead of what Oliver thought about Orlando.
- (iii) Most candidates were able to answer this question correctly though some repeated the answer of sub-part (ii).
- (iv) Most candidates answered this question correctly.
- (v) Most candidates were able to write about Orlando's qualities but could not justify their reasons in doing so as written in the answers.

Suggestions for teachers

- Students must be given sufficient practice in questions where their reasoning power is tested.
- A detailed study along with a clear explanation of each line is essential.
- Train students to write simple, to the point and precise answers.
- Emphasize the importance of reading the question paper carefully.

MARKING SCHEME

Question 1.

- (i) The court wrestler of Duke Frederick
To tell Oliver that Orlando plans to wrestle with him the following day. / He will be wrestling for his credit the following day. / Anyone who comes against him will have a broken limb. / Orlando is young and he would not like to spoil him. / Request Oliver to dissuade Orlando from his intentions or face the disgrace there of.
- (ii) Orlando
He is gentle. / Never schooled yet learned. / Full of noble devises. / Loved by all especially by his own people.
- (iii) The stubbornest fellow in France. / Full of ambition. / Envious emulator of every man's good parts. / A secret and envious contriver against his own brother. / If Charles disgraced Orlando, he would try to kill him in different ways.
- (iv) Duke Senior:-
Banished by his brother and some faithful lords have followed him. / Lives in the Forest of Arden merrily like Robin Hood of old.
Rosalind:-
She is at the court for the sake of Celia. / Not less beloved than Duke Frederick's own daughter.
- (v) Orlando
Has great self respect – he refused to change his father to get reward from the duke; he told Adam that he would not beg. / Brave and fearless – in spite of being persuaded by different people he goes ahead with the wrestling and defeats Charles the court wrestler. A true lover – wrote love poems about Rosalind and hung them on the trees. Kind and caring – took care of Adam when he was exhausted and famished.

Question 2.

Read the extract given below and answer the questions that follow:

Duke Senior : What fool is this?
Jaques : O worthy fool! One that has been a courtier,
..... O that I were a fool!
I am ambitious for a motley coat
Duke Senior : Thou shalt have one.
Jaques : It is my only suit.

- (i) What three things does Jaques say about Touchstone's brain? [3]
- (ii) How did Touchstone moralize on time? [3]
- (iii) What were the two pre-conditions that Jaques put forth before accepting the motley coat from the Duke? [3]
- (iv) Who, according to Jaques, should laugh the loudest? Why? [3]
- (v) Explain what Jaques would do if he was given a motley coat.
What was the Duke's reaction? [4]

Examiners' Comments

- (i) Most candidates were unable to write the three things posed in the question. Majority only mentioned that Touchstone's brain was as dry as a biscuit.
- (ii) This question was understood and well answered by most candidates.
- (iii) There was no clarity in this answer with many candidates writing vague answers.
- (iv) Candidates were able to highlight a few points in an abstract manner. There was no clarity in their answer to the 'Why?' part of the question,
- (v) Most candidates were unable to write proper explanations of the Duke's reaction. For the first part of this question only a general 'he would make fun of anyone he wishes' was mentioned.

Suggestions for teachers

- Since questions asked were specific to the scene, it required a detailed study of the text.
- Train students on how to write specific answers.
- Shakespeare's language may pose challenges but lucid explanations and training of students to refer closely to the text will boost their ability to answer correctly.
- Repeated revision of the text is extremely important.

MARKING SCHEME

Question 2.

- (i) His brain is as dry as the last remaining biscuit on a ship at the end of voyage. / He has packed the corners of his brain with knowledge gained by his personal experiences in all sorts of strange places. / He gives expression to this knowledge in a twisted and disjointed manner.
- (ii) Touchstone took out a watch from his pocket and looking at it with lackluster eyes said in a wise tone that "It is ten o'clock" – it shows how the world is moving on. / Only an hour ago it was nine o'clock and it will be eleven o'clock an hour hence. / Thus as the hours pass we mortals, like fruits, gradually wither and decay slowly.
- (iii) The Duke removes all pre-conceived notions from his head that he is an intelligent man. / As a fool he must further have the unrestricted freedom to mock at, criticize, and turn his sarcasms against anybody he chooses just as the wind has the freedom to blow upon anybody it likes.
- (iv) The man who is hit hardest by the criticism of the fool must laugh the loudest. / He must show that he does not care for the criticism of the fool by laughing them away. / This is wisdom. If he does not show indifference to such comments, / he will expose himself to the danger of being laughed at in front of the world at laugh. / His folly will be laid bare by the random sarcasm of the jester.
- (v) If Jaques were dressed in the motley and given the freedom to speak he will purge society of all the evils and misdeeds. / He says that the world is diseased and infected and he shall undertake to rid human society entirely of all the vices by administering a dose of medicine in the form of advice. / Thus Jaques would like to set himself up as the healer or reformer of the world.

The Duke ridicules Jaques' idea of cleansing the world. / He tells him that he is most unfit to criticize the follies of others. / In his youth he had led a sinful life. / His sins are like the boils and sores which he has caught in the course of his sinful behavior. / In trying to purge the world of its sins and follies, he will only be corrupting the world with 'the ill effects of his past life.

Loyalties : John Galsworthy

Question 3.

Read the extract given below and answer the questions that follow:

Inspector : Then we've got it fixed between 11:15 and 11:30. [*Jots*]
Now, sir, before we go further I'd like to see your butler
and the footman that valets this gentleman.
Winsor : [*With distaste*] Very well, Inspector; only – my butler
has been with us from a boy.
Inspector : Quite so. This is just clearing the ground, sir.
Winsor : General, d'you mind touching that bell?

- (i) Where has the Inspector come from? What has he got 'fixed' between 11.15 and 11.30? How could he have been so accurate about the timing? [3]
- (ii) What conclusions did the Inspector arrive at regarding how the theft was committed? [3]
- (iii) What information did the footman Robert supply, regarding his movements when questioned by the Inspector? [3]
- (iv) What two things in particular had Robert noticed about Mr. De Levis' clothes? [3]
- (v) Why does De Levis strongly suspect Ronald Dancy of committing the theft? [4]

Examiners' Comments

- (i) A few candidates were confused in the second and third part of the question. They could not explain as to how the Inspector could be so accurate about the time.
- (ii) Most candidates correctly answered this question.
- (iii) Some candidates were unable to recollect Robert's movements.
- (iv) A few errors observed in answers written by most candidates. However some candidates failed to mention the odd shoe that was missing.
- (v) A majority of candidates scored poorly as they wrote vague and incorrect answers that had neither clarity nor expression.

Suggestions for teachers

- A more comprehensive and detailed study of the text is called for.
- Minor details are as important as major ones. Impress this fact during classroom discussions when text revision is in progress.
- A thorough revision of the play with the help of role plays of the characters must be conducted in class.

MARKING SCHEME

Question 3.

Loyalties : Galsworthy

- (i) Newmarket. The timing of the theft of the banknotes. De Levis said he was sure it was 11.15 when he put his watch under the pillow before he went to the bath/ Winsor said he had just looked at the time (11.30) and told his wife to send her maid off.
- (ii) The thief was in the room all the time, under the bed and slipped out after De Levis had gone to Mr. Winsor / he came in with a key that fitted the lock/he came in with a skeleton key and out by the window, dropping from the balcony. / Came in by the window using a rope or ladder and out the same way.
- (iii) He had taken De Levis' clothes and boots at 10 o'clock / he had not come up again/ he had gone to bed at 11 / he had not gone to sleep but had played bridge with the two other footmen, Thomas and Frederick, in their room on the ground floor in the right wing at the extreme end of the house.
- (iv) That they were of very good quality / that one odd of his boots was missing and he had assumed that De Levis must have thrown it at a cat.
The Dancy's room was next to his / a distance of just over seven feet between the two balconies / nothing to a man who could take a standing jump on to a narrow bookcase four feet high and balance on it / the creeper stalk was crushed on the inner corner where he would naturally stand when he took his jump back .

Question 4.

Read the extract given below and answer the questions that follow:

Gilman : As I told you, sir, I've been followin' this case. It's what you might call piquant. And I should be very glad if it came about that this helped Captain Dancy. I take an interest, because, to tell you the truth, [Confidentially] I don't like – well, not to put too fine a point upon it Hebrews. They work harder; they're more sober; they're honest; and they're everywhere. I've nothing against them, but the fact is- they get on so.

Twisden : [*Cocking an eye*] A thorn in the flesh, Mr. Gilman.

Gilman : Well, I prefer my own countrymen, and that's the truth of it.

- (i) Who is Mr. Gilman and why does he want to see Mr. Twisden? [3]
- (ii) Mr. Gilman had said earlier that he had come 'from a sense of duty'.
What account does he give in this regard? [3]
- (iii) What account does Mr. Ricardos, who has come with Mr. Gilman, give of how he came to be in possession of the notes? [3]

(iv) What does Mr. Twisden decide to do after Mr. Ricardos leaves? What instructions does he leave with his partner Graviter? [3]

(v) Ronald Dancy's wife Mabel believes completely in her husband's innocence. How does the truth, when revealed, affect her? What are your feelings for her at the close of the play? Give reasons for your answer. [4]

Examiners' Comments

- (i) Most candidates answered the question correctly.
- (ii) Some candidates were unable to write a correct account of why Mr Gilman had come to Mr Twisden.
- (iii) Most candidates answered the question correctly.
- (iv) The sub part of the question posed problems for some candidates as they were unable to recall the instructions given by Mr Twisden.
- (v) Expressing their 'feelings' for Mable and giving a reason for justifying their answer was again a challenging task for many candidates attempting this question.

Suggestions for teachers

- Do a complete revision of each act in the play.
- Guide students on how best to express their feelings for characters asked for in appropriate words.
- Encourage students to read material beyond textbooks to hone and improve their language skills.

MARKING SCHEME

Question 4.

- (i) Mr. Gilman is the owner of Gilman's Department Stores./ He wants to see Mr. Twisden about the stolen notes /. He thinks it will help the lawyer in handling the case.
- (ii) He had been following the Dancy case / had read the papers at 2.25 that afternoon / saw the numbers of the stolen bank notes printed there / remembered he had given change to a customer three days earlier for a fifty-pound note / went to the cash-box out of curiosity / the numbers matched/ it had been given by a customer whom he had known for eight or nine years / an Italian wine salesman named Mr. Paolo Ricardos.
- (iii) Had received it from a gentleman in settlement of a debt of honour / his daughter's good name was involved / a thousand pounds had been given by this gentleman as a settlement / it was given in the middle of October the previous year / the gentleman was Mr. Dancy.
- (iv) Give up the case / disclose the latest development to Sir Frederic who is representing De-Levis in the case / goes down to Brighton to meet him / asks Graviter to visit Putney and verify whether Ricardos actually has a daughter.
- (v) She breaks down / asks him to tell her the truth / not to lie anymore / tells him to hurry and get out of the country to Morocco / the thought of him going to prison upsets her / says she will join him there / will stick by him.
Feelings : any two feelings.

SECTION B - POETRY

The Golden Lyre

Question 5.

Read the extract given below and answer the questions that follow:

We slowly drove – he knew no haste
And I had put away
My labour and my leisure too,
For his civility —

(Because I Could not Stop for Death: Emily Dickinson)

- (i) Who are the “we” in the extract? [3]
- (ii) Why does the poet say ‘he knew no haste’? What does the poet ‘put away’? [3]
- (iii) Which three things do ‘we’ pass by? What does each of these represent? [3]
- (iv) Where do ‘we’ pause? How does the poet describe it? [3]
- (v) What does the poet say about her dress in the second half of the poem?
How has the poem appealed to you? Give a reason to justify your answer. [4]

Examiners’ Comments

- (i) Most candidates answered this question confidently except for some who wrote ‘immorality’ instead of ‘immortality’.
- (ii) Most candidates failed to explain the phrase in their own words e.g. ‘he knew no haste’. A few did not understand the phrase ‘put away’
- (iii) This question was answered correctly by most candidates, however some candidates, instead of writing ‘field of ripened corn’ wrote ‘paddy field’, ‘field of dry grains’, and ‘field of grass’.
- (iv) Many candidates wrote the grave had no roof instead of ‘the roof was scarcely visible’. ‘Basement’ was mentioned instead of ‘Cornice’.
- (v) The description of the dress had a wide range of answers e.g. ‘thick cloth’ to ‘spidery cobweb’. Some candidates did not mention how the poem had appealed to them or give a reason to justify their answer.

Suggestions for teachers

- Emphasise on key/words/phrases/theme of the poem.
- Teach students to appreciate the poem and to feel the thoughts of the poet and the pulse of the piece.
- Students must be taught how to write answers for ‘How has the poem appealed to you?’ They must be taught to give reasons and the ability to justify the same expressing their views/thoughts related to the poem.

MARKING SCHEME

Question 5.

- (i) The poetess / Death / Immortality
- (ii) They drove slowly / Her labour / Her leisure
- (iii) School where children were playing at recess – childhood / Field of ripened corn – adulthood / Setting sun – old age that leads to death
- (iv) Before a house that looked like a mound of earth / The roof was hardly visible / Looked like a cornice on the ground
Her gown was gossamer / her tippet was only Tulle / candidate's opinion.

Question 6

Read the extract given below and answer the questions that follow:

I shall be telling this with a sigh
Somewhere ages and ages hence:
Two roads diverged in a wood, and I
I took the one less travelled by,
And that has made all the difference.

(The Road Not Taken: Robert Frost)

- (i) What shall the poet be 'telling with a sigh'? Why would he be telling it with a sigh? [3]
- (ii) In the beginning of the poem why does the poet say 'I could not travel both'. What did he do then? [3]
- (iii) In what way were the two roads similar?
How did the first road differ from the second road? [3]
- (iv) What nature of the poet is seen in his choice of the road?
Give a reason to justify your answer. [3]
- (v) Explain the symbolism of the diverging road. Give two reasons why the poem leaves a lasting impression.
Justify your answer with close reference to the poem. [4]

Examiners' Comments

- (i) Most candidates did not specify whether the sigh was one of relief or regret.
- (ii) A few candidates failed to give specific phrases such as he was a 'single traveller' and 'at one time'.
- (iii) Some candidates were confused while writing the similarity between the roads and the difference between the 1st and 2nd roads.
- (iv) Candidates were able to provide a reason but the nature of the poet baffled most. They were unable to explain his 'confused' or 'adventurous' spirit.
- (v) A majority of candidates were unable to write an analysis of the poem. Answers overlapped. Hence there were no specific answers for 'symbolism', 'lasting impression' and 'justification'.

Suggestions for teachers

- Students must be made familiar with terms like symbolism, appeal, opinion, reason, lasting impression etc. Written practice is required for the same.
- Advise students to express themselves through effective question techniques.
- Symbolic meanings should be clearly explained.
- Set written work and ensure that the answers are checked.
- Instruct students to answer the question asked and not to give explanations on what is not asked for.

MARKING SCHEME

Question 6.

- (i) That two roads diverged in a wood and he took the one less travelled by. / A sigh of relief because he was successful in his life. / A sigh of regret because he met with failure because of the choice he made.
- (ii) Being a single human being he cannot travel by two roads, at the same time. / Looked at the first road as far as could see where it disappeared in the undergrowth. / Took the other road. / Keeping the first for another day.
- (iii) Both the roads were covered with withered leaves. / The first road was not as grassy as the second road. / The first road was more worn out than the second.
- (iv) adventurous, confused - your opinion
- (v) Symbolism - shows the dilemma and predicament of every individual while making a choice. / Stresses the importance of making choices / A probe into deeper realities of life.

Reasons -

SECTION C – PROSE

A Treasure Trove of Short Stories

Question 7

Read the extract given below and answer the questions that follow:

“You do not seem to be in a good temper,” said Gortsby, judging that he was expected to take due notice of the demonstration.

The young man turned to him with a look of disarming frankness which put him instantly on his guard.

“You wouldn’t be in good temper if you were in the fix I’m in,” he said, “I’ve done the silliest thing I’ve ever done in my life...”

- (i) Who is Gortsby speaking to? What had the person done to make Gortsby speak these words in the extract? [3]
- (ii) What was the ‘silliest thing’ the person said he had done? [3]
- (iii) What did the narrator remember? What made it more remarkable?
How was the problem solved? [3]
- (iv) Where was Gortsby sitting? Give a brief description of the place. [3]
- (v) Earlier who was sitting on the bench with Gortsby?
What did Gortsby think of that person? [4]

Examiners’ Comments

- (i) Most candidates answered this sub-part correctly. Some wrote that Gortsby was speaking to a ‘strange man’ instead of a ‘young man’. Also, the man sat on the bench by ‘jumping’ on it instead of ‘flung himself and they wrote ‘abusing’ for ‘angry and audible expletive’.
- (ii) Most candidates also answered this sub-part correctly. Some were however confused and wrote that the silliest thing the young man had done was that he was unable to produce the cake of soap instead of writing ‘losing his hotel’.
- (iii) A few candidates were confused with the question ‘What made it more remarkable?’ Having answered this part incorrectly, the next question in this sub-part was also incorrectly answered.
- (iv) This question was answered correctly by most candidates.
- (v) Most candidates answered the question correctly.

Suggestions for teachers

- Instruct students that in an exam there is no scope for vague answers.
- Stress the importance of reading the story in detail. Ensure that students pay attention to characters / events / physical descriptions etc. while reading the story.
- Instruct the students to read the questions, understand the same and then make an attempt to answer it.

MARKING SCHEME

Question 7.

- (i) The young man / unburdened himself of an angry and audible expletive / Flung himself into the seat.
- (ii) had come to the town that day / intended to stay at a hotel in Berkshire Square / on reaching found hotel pulled down went to another hotel / came out to buy a cake and soap / did not like to use hotel soap / As returned, he forgot the name of the hotel or the street on which it was.
- (iii) Remembered that he too had lost his hotel in a foreign land. / They were two of them on that occasion. / The hotel was on a canal and when they reached the canal, they were able to find the hotel / In a foreign country one can go to one's consul and get help.
- (iv) Sitting in a park./Had bush planted sward / fenced by park railings / there was a carriage drive / rattle and hoot of traffic.

an elderly gentleman with a drooping air of defiance / the last vestige of self respect in a man who had admitted defeat / clothes were not shabby / was not rich to spent money on chocolate or flowers / belonged to that forlorn orchestra to whose piping no one dances / one of the world's lamenters who induces no responsive weeping

Question 8

“Of all who give and receive gifts, such as they are wisest. Everywhere they are wisest. They are the magi”- Discuss with close reference to the story ‘The Gift of the Magi’.

Examiners' Comments

This question was answered correctly by most candidates who expressed themselves confidently. However, there were many errors in the use of gender, spelling mistakes and also tense errors. A few candidates inadvertently wrote the incorrect names of the main characters.

By Suggestions for teachers

- Emphasise on characters, in-depth detail of the story and sequential order of events.
- Ensure that the students are clear about the Biblical allusion.
- Encourage and train students to express their views/opinions on the characters.
- Regular evaluation should be taken up for such questions.

MARKING SCHEME

Question 8.

In the Bible, the wise men of the East, called Magi or three kings of the Orient-followed a guiding star to pay homage to the newborn Christ, bringing with them gold, frankincense and myrrh. The tradition of giving and receiving gifts is inextricably connected with the gifts of the Magi.

The author begins with a description of their poverty in order to highlight the sacrifice that the Dillingham Youngs make for one another. They had to survive on a very modest income of twenty dollars a week, reduced from a previous income of thirty dollars. At the very beginning O. Henry introduces us to a despondent Della, the young wife of James Dillingham Young because she wanted to buy a gift for her husband at Christmas but lacked the means. The next day was Christmas and Della had been able to save only a dollar and eighty-seven cents from her housekeeping. She realized that she could not buy a gift worthy of him with that paltry sum. While pondering over the gloomy state of things Della suddenly had a brilliant idea. She thought of selling her only precious possession- her luxurious hair to fetch her money for Jim's gift. This flash of inspiration made her eyes sparkle when she stood before the mirror to survey her hair. It fell about her "rippling and shining like a cascade of brown waters." So Della sold her beautiful hair to a hairdresser, Mrs. Sofronie, for twenty dollars and bought a platinum fob chain for Jim. It was simple and chaste in design just like "her Jim".

Jim, on the other hand, had inherited his gold pocket watch from his father which had belonged to his grandfather earlier. He sold his family heirloom to buy a set of beautiful tortoise shell combs for Della- a set she had longed for.

When Jim returns from work he stood transfixed, staring at Della. There was a strange expression in his eyes which Della could not fathom. "It was not anger, nor surprise, nor disapproval, nor horror." When he was finally able to overcome the shock he asked Della to unwrap the package that contained Della's Christmas present. And this was followed by "an ecstatic scream of joy; and then, alas! a quick feminine change to hysterical tears..."

At the end of the story the author O. Henry shows us how true love transcends all other conditions of human life. The young couple makes sacrifices spontaneously perhaps cheerfully, in order to bring happiness to each other. They are able to make the sacrifices spontaneously because of the love they share. That love is, perhaps, the most precious possession of the Youngs. The author concludes the uneventful chronicle of Jim and Della by drawing a parallel of their story with the Biblical story of the Magi. The gifts brought by the three wise men were noble no doubt but they were exchangeable and lacked the spirit of sacrifice. But the gifts brought by him and Della, though utterly useless at the moment, had the essence of sacrifice in them. Their ardent and selfless love for each other prompted them to sacrifice their most precious possessions. Though they may be considered 'foolish' by the worldly-wise, they were, according to O. Henry, the wisest. They were wiser than all who give and receive gifts. They were the true Magi.

Animal Farm : George Orwell

Question 9

Read the extract given below and answer the questions that follow:

‘.....your resolution must never falter. No argument must lead you astray. Never listen when they tell you that Man and the animals have a common interest.... we must not come to resemble him....No animal must ever live in a house, or sleep in a bed, or wear clothes, or drink alcohol, or smoke tobacco, or touch money, or engage in trade.

- (i) Who is the speaker of the above lines?
Where is the speaker at this moment and why? [3]
- (ii) Name the animals who attended the meeting. [3]
- (iii) How does the rebellion finally happen? [3]
- (iv) According to the speaker, how are animals different from man? [3]
- (v) What are the seven commandments of the Animal Farm? [4]

Examiners' Comments

- (i) Most candidates answered the question correctly
- (ii) Majority of candidates were unable to name all the animals that attended the meeting.
- (iii) Most candidates answered the sub-part of the question correctly.
- (iv) In a few cases only a one or two differences were written by candidates that needed a more comprehensive answer.
- (v) Of the seven Commandments, candidates were able to write only a few.

Suggestions for teachers

- Ensure students read the actual text and not a summary of the chapters.
- A repeated revision will benefit the students.
- Go slow while teaching the text.
- Make it a practice of assigning adequate written work so that they know exactly what is expected in an answer.

MARKING SCHEME

Question 9.

- (i) The speaker of the above lines is Old Major, / a prize Middle White boar on Jones' Manor Farm. / He is in the big barn holding a meeting with all the animals on Jones' Farm./ To communicate to the other animals the strange dream he had had the previous night.
- (ii) Bluebell, Jessie and Pincher – the three dogs; Boxer and Clover – the two cart-horses; Muriel – the white goat; Benjamin – the donkey; Mollie – the foolish but pretty white mare.
- (iii) One Saturday on Midsummer's Eve, Mr. Jones went into Willington and got drunk – came back midday on Sunday – animals were not fed – Mr. Jones returned and went to sleep – by evening one of the cows broke in the door of the store-shed and all the animals began to eat from the bins – Mr. Jones woke up – he and his men lashed with whips – the animals flung themselves on their tormentors – butted and kicked them – gave up trying to defend themselves and took to their heels.
- (iv) Man lives in a house, / sleeps in a bed, / wears clothes, / drinks alcohol, / smokes tobacco and / engages in money and trade whereas animals do not.
- (v) Whatever goes upon two legs is an enemy / whatever goes on four legs or had wings is a friend / no animal shall wear clothes / no animal shall kill any other animal / all animals are equal / no animal shall sleep in a bed / no animal shall drink alcohol.

Question 10

In the aftermath of the rebellion against Mr. Jones, Snowball and Napoleon emerge as the prominent characters, yet it is Napoleon who eventually consolidates and assumes power as an unquestioned leader. In the light of the above statement, discuss the character of Napoleon in the novel 'Animal Farm'.

[16]

Examiner's Comments

This question was correctly answered by candidates who chose it. It was a popular choice and they gave a good account of themselves in their expressions. In some answers however the names of the characters were incorrect and candidates seemed to be confused.

Suggestions for teachers

- Read, explain, revise, pose questions, set sufficient written work. This will result in students being more confident and prepared to tackle questions presented before them.

MARKING SCHEME

Question 10.

Napoleon, the pig, is really the central character on the farm.

Comrade Napoleon represents the human frailties of any revolution. Although Napoleon seems at first to be a good leader, he is eventually overcome by greed and soon becomes power hungry. The true side of Napoleon becomes evident after he slaughters so many animals for plotting against him. He even hires a pig to sample his food for him to make certain that no one is trying to poison him. He being the representative of pigs keeps the milk and apple for himself leaving the food for other animals rationed. He takes away the eggs from the hen to sell them commercially for raising money. He and the other pigs seemed to be the only ones to be gaining weight while the other animals are busy making two ends meet.

Orwell explains, "Somehow it seemed as though the farm had grown richer without making the animals themselves any richer- except, of course for the pigs and the dogs."

Napoleon doesn't even pretend to lead a socialist state. After renaming it a Republic and instituting his own version of the commandments and the Beasts of England, Comrade Napoleon, he quickly becomes more or less a dictator who of course has never been elected by the animals. He is given names like "Father of all animals", "Terror for mankind."

By the end of the book, he changes all the Seven Commandments to the extent that the animals land up in the same position from which they wanted to escape; only this time it was one of their own who was torturing them and not the human beings.

To Sir, With Love : E.R. Braithwaite

Question 11.

Read the extract given below and answer the questions that follow:

I was staggered by this unexpected encounter and remained where I was for a moment, unsure of what to do next. Then, deciding to take a closer look at what went on in that room; I knocked on the door, opened it and walked in. There was a general hubbub and for a little while no one seemed aware of my entry, and then, very gradually, one by one the occupants turned to stare at me.

- (i) Who had an encounter with whom and where? [3]
- (ii) Why was the narrator unsure of what to do next? What decision did the narrator take?
Why? [3]
- (iii) What did he observe then? [3]
- (iv) Describe the man the narrator found when he entered the staff room. [3]
- (v) Earlier 'he' had met Alex Florian, the Headmaster. What did the Headmaster tell him? [4]

Examiners' Comments

- (i) This question was answered correctly by most candidates.
- (ii) Most candidates wrote correctly for this sub-part too.
- (iii) Some candidates were unable to state what it was the author observed.
- (iv) The description of the teacher was expressed confidently by most candidates.
- (v) Some candidates got confused and could not recollect everything that the Head master had told him.

Suggestions for teachers

- A complete revision of the text will help candidates to write good answers.
- Model questions should be prepared and given to students to answer and revise.
- Take time to explain English manners and customs.
- Give a clear explanation of the class differences in England in the 1960's, so that the students have a better understanding of the forces that drive the novel and why the class behaves in the way they do.

MARKING SCHEME

Question 11.

- (i) Mr. Braithwaite (the narrator) had an encounter with a tall, red-headed girl / when she rushed out of the classroom violently closely pursued by two others. Where-in a corridor of the Greenslade Secondary School.
- (ii) The narrator was unsure of what to do next because he had no previous knowledge of the handling of girl students / and also he had no authority at that time. / The narrator decided to look inside the classroom / because he felt himself concerned.
- (iii) There was no sign of a teacher – About forty boys and girls were in the room – all had about them a degree of adulthood – girls wore too-tight sweaters and too-long close-fitting skirts and flat-heeled shoes – all a bit soiled and untidy – boys wore blue jeans, T-shirts or open-necked plaid shirts.
- (iv) The man's fingers were crossed behind his head / he was lean and thin / in a baggy grey flannel slacks / with a jacket with leather patches at the elbows and wrists.
To take a good look around the school first. Things were done differently and many teachers found it disquieting – Wander around as you please – see what's happening – if you decide to stay with us, we'll talk about it after lunch.

Question 12

Give a vivid account of the Christmas party for the junior and senior students that brings the school year to a close.

[16]

Examiners' Comments

Concepts related to this question was not understood by most candidates as they wrote about Christmas party celebrations in their own school without any reference to the text.

A probable reason was that they were either unfamiliar with the story or they had taken up the book as an extra text.

Suggestions for teachers

- Every episode, including minor ones such as the Christmas Party needs to be gone into in great depth.
- Cover the entire text, laying equal stress and importance on every chapter.

MARKING SCHEME

Question 12.

Junior party at 3 O'clock. Braithwaite did not enjoy it. The children's behaviour upset him. They wolfed the food down greedily, snatching at anything that caught their fancy, shouting across at each other. Seniors were busy serving them. Mr. Florian seemed unperturbed moving easily among them helping here and there.

After it was over, the big boys brought brooms, mops and pails – cleared the tables and mopped the floor. A buffet table was set up in one corner of the room. Record player and dance records were also kept ready. Some old boys and old girls of the school had been invited – party to begin at 6 o'clock. Ms. Dare asked him for a dance that night. He consented but said something slow – no jiving. All the staff were on hand. Denham and Porter looked smart in their best suits and brightly polished shoes – Seales, Fernman, Buckley, Sapiano and Wells smiled self-consciously and remained together. The girls entered – chattering and giggling – looking fresh, green and gay as wild flowers. With their lipstick and high heels they were as attractive a bunch of youngsters as could be found anywhere. Pamela presented a picture of sheer beauty. It was a very happy occasion. They danced and played silly games. Weston was Master of ceremonies and attended to the music. He danced with Pamela to the song 'In the Still of the Night' when the "Ladies' Excuse - me Foxtrot" was announced. She was sensual and she invaded his mind and body. She asked if she could see him sometimes after she left school. He readily agreed.

Topics found confused / difficult

- Many candidates did not attempt Question 2, as the answers to the questions were point specific and required detailed study.
- In Question 6, the candidates did not do well. Most of the answers were found to be overlapping. Candidates repeated the same answers in sub-part (ii) and sub-part (iii).
- In sub-part (iv) candidates were not in a position to identify the nature of the poet as well as give a reason for the same with justification.
- In Question 7, the candidates' answers reflected a lack of thorough reading of the text. There were repetition of answers for sub-parts (ii) and (iii). Also, candidates failed to give specific answers to Gortsby's thoughts of the old gentleman.
- There was blatant irrelevancy in the answers as candidates described their respective schools' Christmas parties. This would seem to be a misunderstanding / misinterpretation of the question by some candidates.

Suggestions for students:-

- ***Revise the text thoroughly and in detail.***
- Read the questions carefully.
- Answer all parts of a question. Each sub-part must be answered separately.
- Answers must be kept short and specific to the question asked.
- Long answers should have sufficient length and details as per the requirement of the question.
- While revising, write all the answers and then review them orally.
- Train yourself to analyse and comprehend characters and learn to assess a character's feelings/emotions at various stages in the story/play/poem.

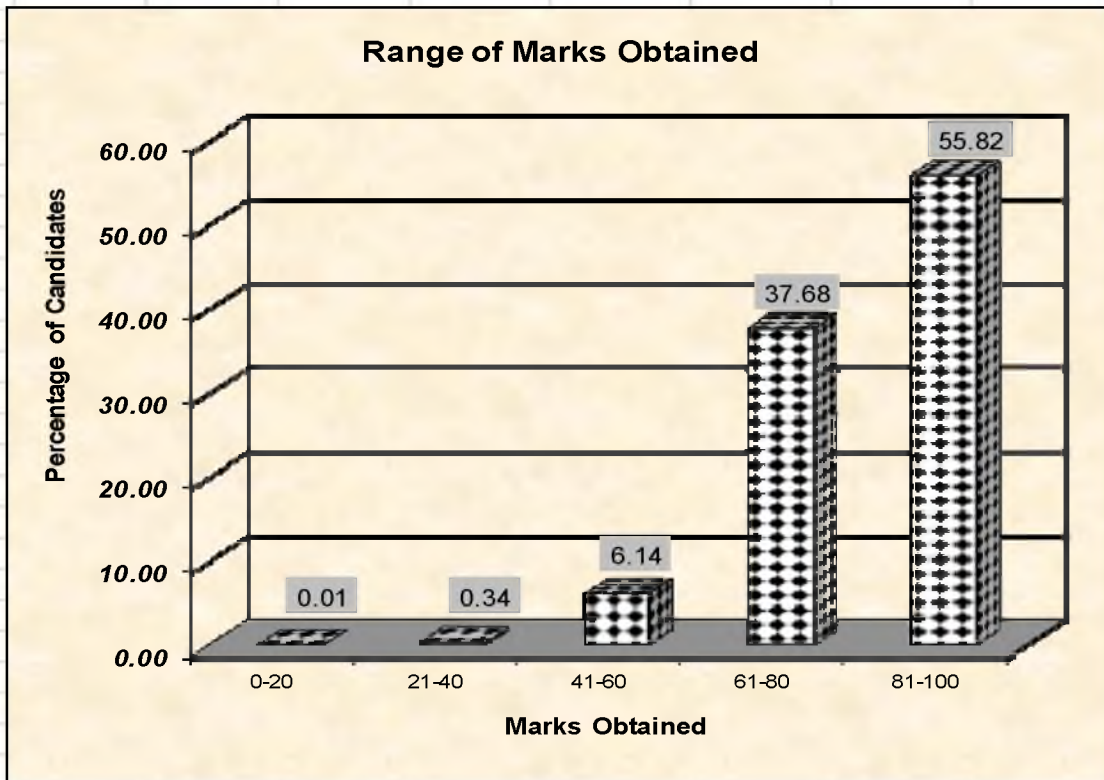
HINDI

STATISTICS AT A GLANCE

Total Number of students who took the examination	97,287
Highest Marks Obtained	99
Lowest Marks Obtained	14
Mean Marks Obtained	80.71

Percentage of Candidates according to marks obtained

Details	Mark Range				
	0-20	21-40	41-60	61-80	81-100
Number of Candidates	13	335	5976	36661	54302
Percentage of Candidates	0.01	0.34	6.14	37.68	55.82
Cumulative Number	13	348	6324	42985	97287
Cumulative Percentage	0.01	0.36	6.50	44.18	100.00



ICSE
HINDI

ANALYSIS OF PERFORMANCE FOR THE YEAR 2013

Question 1

Write a short composition in Hindi of approximately 250 words on any **one** of the following topics:-

[15]

निम्नलिखित विषयों में से किसी एक विषय पर लगभग 250 शब्दों में संक्षिप्त लेख लिखिए-

- (i) अपने परिवार के किसी ऐसे सदस्य का वर्णन कीजिए, जिसने आपको प्रभावित किया हो। बताइए कि उस व्यक्ति के प्रभाव ने आपके जीवन को किस प्रकार परिवर्तित किया? आपके गुणों को निखारने में और अवगुणों को दूर करने में उस व्यक्ति ने आपकी किस प्रकार सहायता की?
- (ii) त्योहार हमें उमंग एवं उल्लास से भरकर अपनी संस्कृति से जोड़े रखते हैं। आज-कल लोगों में त्योहारों को मनाने के प्रति उत्साह एवं आस्था का आभाव देखा जाता है? लोगों की इस मानसिकता के कारण बताते हुए जीवन में त्योहारों के महत्व का वर्णन कीजिए।
- (iii) वर्तमान युग में इंटरनेट अपनी उपयोगिता के कारण एक आवश्यकता बनता जा रहा है। इस विषय पर अपने विचार प्रकट कीजिए और बताइए कि इंटरनेट जीवन में सुविधा के साथ-साथ मुसीबत किस प्रकार बन जाता है?
- (iv) एक कहानी लिखिए जिसका आधार निम्नलिखित उक्ति हो-
‘परिश्रम ही सफलता का सोपान है।’
- (v) दिए गए चित्र को ध्यान से देखिए और चित्र को आधार बनाकर वर्णन कीजिए अथवा कहानी लिखिए जिसका सीधा व स्पष्ट सम्बन्ध चित्र से होना चाहिए।

परीक्षकों की टिप्पणियाँ-

- (i) अधिकांश विद्यार्थियों ने यह विकल्प चुना। सदस्यों का वर्णन करने में छात्र समर्थ रहे पर गुणों को निखारने में और अवगुणों को दूर करने में व्यक्ति ने कौसी सहायता की। इसका उत्तर छात्र नहीं लिख पाए। कुछ विद्यार्थी परिवार के सदस्यों के वर्णन में भ्रमित दिखाई दिये। अधिकांश छात्रों ने गुणों को निखारने का वर्णन तो भली प्रकार से किया लेकिन अपने अवगुणों को अधिक स्पष्ट नहीं कर पाए। कुछ बच्चों ने बहुत भावपूर्ण वर्णन किया है। कुछ विद्यार्थियों ने पारिवारिक सदस्यों के स्थान पर गुरु का वर्णन किया। कुछ छात्रों ने कई व्यक्तियों के बारे में लिखा है। भाव स्पष्ट करने में भी छात्र असमर्थ रहे। भाषा संबन्धी अशुद्धियाँ भी पायी गयी।

- छात्रों को स्पष्ट बताना चाहिए कि प्रस्तावना और उपसंहार के अलग-अलग अंक होते हैं अतः छात्र निबंध लिखते समय इसका विशेष ध्यान रखें।
- चित्र लेखन का अभ्यास भी कक्षा में करवाया जाना चाहिए। अभ्यास कराते समय चित्र की बारीकियों का भी ध्यान रखने को कहें।
- मुहावरों तथा उक्तियों का कक्षा में अभ्यास करवाना चाहिए। सामुहिक क्रिया के द्वारा भी इसे करवाया जा सकता है।
- श्रुतलेख द्वारा वर्तनी की अशुद्धियों को दूर करने का प्रयास किया जाना चाहिए।

- (ii) अधिकतर छात्रों ने इस विकल्प का भी चयन किया। त्योहार हमें उमंग तथा उल्लास से भरते हैं। यह भाव तो बच्चे समझ पाए लेकिन हमारी संस्कृति से हमें किस प्रकार जोड़े रखते हैं। इस बात की गहराई को समझ पाने में सक्षम नहीं हुए। उत्साह तथा आस्था के अभाव पर खुलकर वर्णन नहीं कर पाए लेकिन कुछ बच्चों ने सफल प्रयास किया। त्योहार शब्द देखते ही बच्चों ने होली, दीपावली, क्रिसमस आदि त्योहारों का वर्णन कर दिया। मुख्य विषय त्योहारों को मनाने के प्रति उत्साह एवं आस्था का अभाव क्या है? इसका वर्णन नहीं किया। त्योहारों के महत्व को भी स्पष्ट नहीं लिखा। त्योहारों का महत्व लिखने में मुख्य बिन्दुओं में न्यूनता पायी गई। भाषा, वर्तनी तथा रचना सम्बन्धी त्रुटियाँ पाई गई।
- (iii) अधिकांश विद्यार्थियों ने यह विषय चुना और प्रायः सभी विद्यार्थियों ने अच्छा लिखा है। निम्न स्तर के 'छात्र मुसीबत किस प्रकार बन जाता है' का भाग स्पष्ट नहीं कर पाए। कुछ विद्यार्थियों ने इस विषय को बहुत अच्छे से लिखा है। वर्तमान युग के उसके उपयोग व हानियाँ सभी से वे पूर्ण परिचित थे। इंटरनेट का विषय बच्चों के अनुकूल था।
- (iv) बहुत कम विद्यार्थियों ने इस विकल्प का चयन किया। अधिकतर छात्रों ने उक्ति के अर्थ को स्पष्ट नहीं किया बल्कि सीधी कहानी लिखनी शुरू कर दी। कहानी लेखन में बच्चों ने शिक्षाप्रद कहानी लिखी केवल उक्ति का अर्थ स्पष्ट करने में लापरवाही का प्रदर्शन किया। कहानी में मौलिकता तथा रोचकता का अभाव था। कहीं-कहीं पर भाषा व व्याकरण में त्रुटियाँ पायी गयी।
- (v) इस विकल्प का चयन बहुत कम छात्रों ने किया। लेकिन जिन्होंने भी किया बहुत ही भावपूर्ण ढंग से किया। पर चित्र परिचय का आभाव देखा गया। कुछ विद्यार्थियों को चित्र समझने में कठिनाई हुई क्योंकि चित्र अत्यधिक स्पष्ट नहीं था। कुछ विद्यार्थियों ने चित्र का पूर्ण विवरण नहीं दिया। कुछ छात्रों ने ऐसा लिखा जिसका सम्बन्ध चित्र के साथ नहीं था। कुछ छात्रों ने सिर्फ चित्र का वर्णन किया उस पर निबन्ध लिखने में असफल रहे।

- व्याकरण संबन्धी अशुद्धियों को कक्षा में बार-बार अभ्यास कराकर सुधार लाने का प्रयास करना चाहिए।
- कुछ ऐसा प्रयास करना चाहिए कि छात्रों की कल्पना शक्ति का विकास किया जा सके।
- मौलिक एवं रोचक कहानी-लेखन के लिए प्रेरित किया जाना चाहिए।
- निबन्ध के सभी विषयों को ध्यानपूर्वक पढ़ने का निर्देश दें।
- विद्यार्थियों के गुणों व अवगुणों के बारे में कक्षा में उनसे पूछे जाएँ व उन्हें इसका पूर्ण ज्ञान कराया जाए।
- प्रस्ताव के हर बिंदु की ओर ध्यान दिलायें। विषय को ध्यानपूर्वक पढ़कर रूपरेखा तैयार करने को कहें। प्रयाप्त लिखित अभ्यास करवाएँ।
- कल्पनात्मक निबंधों का भी कक्षा में अभ्यास करायें। विद्यार्थियों को सिखाया जाए कि विशेषण, तुलना, उपमा एवं मुहावरों का प्रयोग करके भाषा को प्रभावशाली बनाएँ।
- विद्यालयों में समय-समय पर सभी त्योहारों के विषय पर नाटिका इत्यादि के माध्यम से त्योहारों के प्रति उल्लास की भावना को जाग्रत करवाया जाए।
- विचारात्मक विषयों पर कक्षा में वाद-विवाद करवाकर निबंध लेखन का अभ्यास करवाना चाहिए।
- पक्ष या विपक्ष में अपने विचार लिखने वाले निबंधों के सम्बन्ध में बच्चों को बताया जाये कि वे एक ही पक्ष में अपने विचार रखें।
- भूमिका, विषय वर्णन तथा उपसंहार-निबंध के इन तीनों भागों का महत्व बताकर लिखने का अभ्यास कराया जाना चाहिए।

अध्यापकों के लिए सुझाव-

- विद्यार्थियों को समझाएँ कि निबंध का मुल्यांकन विषय के सभी बिंदुओं को ध्यान में रखकर किया जाता है अतः निबंध लिखने समय छात्र इस पर विशेष ध्यान दें।
- लोकोक्तियों का अर्थ कक्षा में स्पष्ट करना चाहिए। कक्षा में लोकोक्ति के आधार पर कहानी लिखने या बोलने का अभ्यास कराया जा सकता है।

योजना

प्रश्न 1

मुल्यांकन करते समय निम्न बिन्दुओं पर ध्यान केन्द्रित किया गया-

विषय की भूमिका, विषय-वर्णन (सम्बन्धित उदाहरण, सूक्तियाँ, भाषा-शैली, अभिव्यक्ति-कौशल व विषय-विस्तार) एवं उपसंहार पर ध्यान दिया गया।

निबन्ध का आरम्भ व अन्त प्रभावपूर्ण होने पर, मध्यभाग में अनुच्छेदों की सहायता से विचारों के क्रमशः प्रस्तुतिकरण किए जाने पर, विषय का अर्थ भली प्रकार स्पष्ट किए जाने पर तथा विषय का महत्व/हानि-लाभ का यथोचित वर्णन किए जाने पर विद्यार्थियों को अति उत्तम अंक दिए गए हैं।

अशुद्ध वर्तनी, अशुद्ध भाषा, विषय से हटकर या अपनी इच्छानुसार विषय में परिवर्तन किए जाने पर अथवा विषय का अनावश्यक विस्तार किए जाने पर विद्यार्थियों के अंक काटे गए हैं।

Question 2

Write a letter in Hindi in approximately 120 words on any **one** of the topics given below:-

निम्नलिखित में से किसी एक विषय पर हिन्दी में लगभग 120 शब्दों में पत्र लिखिए:-

[7]

- आपके क्षेत्र में सड़कों पर बहुत अधिक पानी जमा हो जाता है, क्योंकि अधिकांश सड़कें टूटी हुई हैं। जगह-जगह 'स्पीड ब्रेकर' यातायात में सहायक न होकर बाधक बन गए हैं। परिस्थिति की पूर्ण जानकारी देते हुई नगर निगम के अधिकारी को शिकायती पत्र लिखिए।
- आपके विद्यालय में कुछ अतिथि आए थे, जिनकी देखभाल की जिम्मेदारी आपको सौंपी गई थी। अपनी माताजी को पत्र लिखकर बताइए कि वे आतिथि विद्यालय में क्यों आए थे और आपने उनके लिए क्या-क्या किया?

परीक्षकों की टिप्पणियाँ-

- (i) अधिकांश छात्रों ने इसी विषय का चुनाव किया है। पत्रों के प्रारूप के विषय में बहुत से विद्यार्थी भ्रमित दिखाई दिए। अधिकांश बच्चों ने सड़कों की हालत के विषय में तो विस्तार से वर्णन किया परन्तु स्पीड ब्रेकर किस प्रकार बाधक बन रहे हैं इसका वर्णन कर पाने में असमर्थ रहे। कुछ छात्रों ने पत्र के प्रारूप में त्रुटियाँ की हैं। कुछ छात्रों ने सभी मुख्य बिन्दुओं का समावेश नहीं किया। पत्र में मुख्य विषय में तीन बातें थीं। सड़कों का टूटना, पानी जमा होना तथा स्पीड ब्रेकर। कुछ छात्रों ने केवल दो का ही वर्णन किया है। कुछ विद्यार्थी भवदीय के साथ आपका या भवदीय के स्थान पर आपका आज्ञाकारी जैसी त्रुटियाँ करते रहे। स्पीड ब्रेकर से होनी वाली परेशानियों का वर्णन नहीं कर पाए। व्याकरण तथा भाषा सम्बन्धी अशुद्धियों की अधिकता अधिक पायी गई। पत्र में औपचारिक शब्दों का अभाव पाया गया।
- (ii) अधिकांश छात्रों ने पत्र लेखन के अन्तर्गत अनौपचारिक पत्र का विकल्प के रूप में चयन किया एवं अभिवादन का अभाव देखा गया। जिन छात्रों ने सम्बोधन में 'आदरणीय' लिखा है तो उसमें वर्तनी की त्रुटि दिखाई दी। मुख्य विषय आतिथि क्यों आए थे तथा आपने उनके लिए क्या-क्या किया। इसमें क्या-क्या किया तो लिखा किन्तु क्यों आये थे यह सब विद्यार्थियों ने नहीं लिखा। माताजी के लिए अभिवादन (सादर-प्रणाम) का प्रयोग अधिकतर विद्यार्थियों ने नहीं किया। अतिथि की देखभाल की जिम्मेदारी में उनके रहने व खाने-पीने के प्रबन्ध के बारे में बहुत कम विद्यार्थियों ने वर्णन किया है। शब्द विचार तथा वाक्य विन्यास की अशुद्धियाँ पायी गईं।

अंक-योजना-

प्रश्न 2

पत्र-लेखन में पत्र के प्रारूप-पत्र प्राप्तकर्ता के पद, गरिमा आदि के अनुसार उचित सम्बोधन तथा

अध्यापकों के लिए सुझाव-

- पत्र के प्रारूप का विशेष महत्व होता है अतः इसका ध्यान दिलाते हुए पत्र लेखन का नियमित अभ्यास करवाना चाहिए।
- पत्र में अभिवादन, सम्बोधन आदि पर विशेष ध्यान दिलाने का प्रयास किया जाना चाहिए।
- पत्र के विषय को ध्यानपूर्वक पढ़ने व समझकर लिखने का निर्देश देना चाहिए।
- शब्द ज्ञान में वृद्धि के लिए नियमित रूप से नवीन शब्दों की सूची बनवाकर वाक्य प्रयोग द्वारा उनके अर्थ स्पष्ट करायें।
- औपचारिक पत्र का नियमित अभ्यास करवाया जाना चाहिए। इसके प्रारूप एवं उचित सम्बोधन इत्यादि पर विशेष ध्यान दिया जाना चाहिए।
- पत्र निर्देश को ध्यानपूर्वक पढ़ने के लिए बार-बार प्रेरित करें जिससे अशुद्धियों से बचा जा सके।
- पत्र लिखवाने से पूर्व मौखिक चर्चा अवश्य करें।
- हिन्दी भाषा में रूचि जाग्रत कर वर्तनी और भाषा सुधार पर विशेष बल दिया जाना चाहिए।
- शब्द एवं वाक्य विन्यास की शुद्धि पर ध्यान देने के लिए छात्रों को प्रेरित करें।
- विद्यार्थियों के सामान्य ज्ञान बढ़ाने वाले विषयों को देकर पत्र लेखन का अभ्यास करवाया जाना चाहिए।
- छात्रों के शब्द ज्ञान को बढ़ाने का प्रयत्न करें।
- औपचारिक पत्रों में औपचारिक शब्दों के प्रयोग की आवश्यकता से विद्यार्थियों को अवगत करायें।

अभिवादन, दिनांक और मूल विषय पर विशेष महत्व दिया गया है। सरलता, स्पष्टता, और विषयानुरूप संक्षेप में की गई विचाराभिव्यक्ति एक अच्छे पत्र की पहचान है।

Question 3

Read the passage given below and answer in Hindi the questions that follow, using your own words as far as possible:-

निम्नलिखित गद्यांश को ध्यान से पढ़िए और उसके नीचे लिखे प्रश्नों के उत्तर हिन्दी में लिखिए।
उत्तर यथासंभव आपके अपने शब्दों में होने चाहिए:-

नामू की माँ ने अपने बेटे से कहा, “जा, कुल्हाड़ी लेकर पलाश के पेड़ से कुछ छाल उतार ला।”

“अभी लाया माँ।” कहकर नामू ने कुल्हाड़ी उठाई और जंगल की ओर निकल गया। वहाँ उसने पलाश के पेड़ की छाल उतारी और फिर घर की ओर चल पड़ा। रास्ते में विचार करने लगा कि जब मैं कुल्हाड़ी से पेड़ पर प्रहार करता था, तो एक आवाज़ पेड़ से निकलती थी, कहीं वह आवाज़ पेड़ की कराह तो नहीं थी? जब मैं कुल्हाड़ी से पेड़ पर प्रहार करता होऊँगा, तो पेड़ को पीड़ा भी तो होती होगी।

नामू ने घर आकर पलाश की छाल माँ को सौंप दी और स्वयं घर से दूर कुल्हाड़ी लेकर जा बैठा। वहाँ बैठकर उसने कुल्हाड़ी से अपना पैर रगड़ना शुरू किया। रगड़ के साथ पाँव में पीड़ा भी होती थी, खून बहता था और नामू के मुँह से हल्की-हल्की चीखें भी निकलती थीं। यह सब उसने पेड़ की पीड़ा अनुभव करने के लिए किया था।

कुछ देर बाद वह घर लौट आया और माँ से खाना माँगा। उसके चेहरे पर पीड़ा की स्पष्ट रेखाएँ उभर आई थीं, मगर वह चुप था। माँ ने देखा लेकिन कुछ समझी नहीं। एकाएक माँ की दृष्टि उसके कपड़ों पर पड़ी, जो खून से लाल हो चुके थे। माँ ने घबराकर पूछा, “यह क्या हुआ, नामू?”

“कुछ नहीं माँ, तुम चिन्ता मत करो।”

माँ और अधिक घबराकर बोली, “चिन्ता कैसे न करूँ बेटा, तेरे शरीर से खून देखकर मैं चिन्ता नहीं करूँगी, तो फिर और कौन चिन्ता करेगा?”

नामू कहने लगा, “माँ, तुमने पलाश की छाल मँगवाई थी, तो कुल्हाड़ी से छाल उतारते हुए, मुझे ऐसा अनुभव हुआ कि पेड़ कराह रहा है और जैसे उसे पीड़ा हो रही है। अपने पाँव पर कुल्हाड़ी की रगड़ से मैं यह जानना चाहता था, कि क्या सभी को एक-सी पीड़ा होती है?”

बेटे की बात सुनकर, माँ का हृदय भर आया। माँ की आँखों से आँसुओं की धारा बह निकली। उसने नामू को गले लगाते हुए कहा, “लगता है, मेरे पुत्र के रूप में किसी संत ने जन्म लिया है। बेटे, तू पराये दुःख से दुःखी होकर, उस दुःख को अनुभव करना चाहता था; पराया दुःख भी पेड़ का, जिसमें तुझे प्राण दिखाई दिये। अवश्य ही, तू एक दिन बड़ा संत बनेगा।”

आगे चलकर यह ‘नामू’ नामदेव के नाम से महाराष्ट्र का प्रसिद्ध संत हुआ।

वास्तव में दया, धर्म का भाव रखना और दूसरे के दुःख को महसूस करना संतों का स्वभाव होता है। आज अपने पर्यावरण को बचाने के लिए नामदेव जैसे संतों की आवश्यकता है, जिनके मन में न केवल जीवों के प्रति ही दया की भावना हो, बल्कि पेड़, पौधों के लिए भी अपनेपन का भाव हो। आज के स्वार्थी मानव ने प्रकृति के प्रति जिस प्रकार का व्यवहार किया है, वह निन्दनीय है क्योंकि मानव के लोभ ने धरती के अस्तित्व को ही संकट में डाल दिया है।

- (i) नामू को माँ ने क्या आदेश दिया था? माँ के आदेश का पालन करते समय उसने क्या विचार किया? [2]
- (ii) घर आकर नामू ने क्या किया और क्यों? [2]
- (iii) माँ क्या देखकर चिन्तित हुई? उसका हृदय क्यों भर आया? [2]
- (iv) संत के स्वभाव की क्या विशेषता होती है? आगे चलकर नामू किस रूप में प्रसिद्ध हुआ? [2]
- (v) आपको इस गद्यांश से क्या शिक्षा मिली? पेड़-पौधों की सुरक्षा क्यों आवश्यक है? [2]

परीक्षकों की टिप्पणियाँ-

- (i) अधिकांश विद्यार्थी द्वितीय भाग का उत्तर सही नहीं दे पाए। बहुत कम विद्यार्थी प्रश्न के द्वितीय भाग को समझने में समर्थ रहे हैं। प्रश्न के द्वितीय भाग का स्पष्ट उत्तर कुछ छात्रों ने न लिखकर गद्यांश की भाषा में ही पूरा उत्तर उतार दिया है।
- (ii) कुछ विद्यार्थी प्रश्न के प्रथम भाग को स्पष्ट नहीं कर पाए हैं तथा कुछ ने द्वितीय भाग का उत्तर नहीं दिया है। कुछ छात्रों ने प्रश्न के दूसरे भाग में लिखा कि क्योंकि माँ ने छाल मँगवाई थी। कुछ विद्यार्थियों के लिए प्रश्न पूर्ण रूप से स्पष्ट था। उनके उत्तर उचित प्रकार दिए हैं।
- (iii) अधिकांश छात्रों ने सटीक उत्तर लिखा। कुछ छात्रों ने प्रश्न के दोनों भागों को मिलाकर एक ही बात लिखी। कुछ छात्रों ने प्रश्न में केवल चिन्तित शब्द देखकर अवतरण का वह भाग लिख दिया जिसमें माँ ने चिन्ता शब्द का प्रयोग किया है। यह नहीं देखा कि प्रश्न के उत्तर था भाव आया या नहीं। कुछ विद्यार्थी माँ की चिन्ता का स्पष्ट कर पाने में असमर्थ रहे।
- (iv) स्पष्ट रूप से लिखा होने के पश्चात् भी कुछ विद्यार्थी संतों के स्वभाव को स्पष्ट नहीं कर पाए। कुछ छात्रों ने प्रश्न के दूसरे भाग के उत्तर में संत जी का नाम नहीं लिखा। कुछ विद्यार्थी के लिए प्रश्न स्पष्ट था उत्तर उचित प्रकार से दिया गया।

अध्यापकों के लिए सुझाव-

- विद्यार्थियों को कम से कम दो या तीन बार अपठित गद्यांश को ध्यान से पढ़ने का निर्देश दिया जाना चाहिए। उसे समझकर उत्तर तैयार करने की दिशा में प्रेरित करना चाहिए।
- अपठित गद्यांश का अधिकाधिक व नियमित अभ्यास कराया जाना चाहिए। छात्रों को अपनी भाषा में उत्तर लिखने का अभ्यास एवं भाषा की शुद्धियों पर ध्यान देने की आवश्यकता समझना चाहिए।
- उत्तर लिखते समय प्रश्न के दोनों भागों का उत्तर अलग-अलग अनुच्छेद में लिखा जाना चाहिए व मुख्य बिन्दुओं के समावेश की आवश्यकता भी समझाई जानी चाहिए।
- विद्यार्थियों को अभ्यास करायें कि उत्तर लिखने के बाद वे सुनिश्चित कर लें कि उन्होंने प्रश्न के सभी भागों का उत्तर दे दिया है।
- कक्षा में कहानियाँ सुनाकर उनसे मिलने वाली शिक्षा पर विचार विमर्श भी करना चाहिए।

- (v) अधिकांश विद्यार्थी गद्यांश की शिक्षा में केवल पेड़ पौधे की सुरक्षा पर ही वर्णन करते रहे। कुछ छात्रों ने द्वितीय भाग का उत्तर नहीं लिखा तथा प्रथम भाग के लिए अपठित का अन्तिम अनुच्छेद उतार दिया। प्रथम अंश क्या शिक्षा मिली? में कुछ विद्यार्थियों को स्पष्ट करने में परेशानी हुई।

अध्यापकों के लिए सुझाव-

- 'श्रुत-भाव-ग्रहण' आदि के माध्यम से अर्थ ग्रहण की प्रक्रिया को सरल व प्रभावी बनाने का प्रयास किया जाना चाहिए।
- छात्रों की समझ के विकास के लिए विवेचनात्मक, विश्लेषणात्मक व तर्कपरक प्रश्नों का अभ्यास कराया जाना चाहिए।
- भाषा एवं वक्तनी सुधारने की दिशा में अधिक से अधिक छात्रों से अभ्यास करवाया जाना चाहिए। भाषा ज्ञान बढ़ाने की दिशा में निरंतर प्रयत्न किया जाना चाहिए।
- विचारात्मक प्रश्नों का निरंतर अभ्यास एवं नए-नए शब्दों का प्रयोग भी भाषा ज्ञान की वृद्धि के लिए सिखाया जाना चाहिए।

अंक योजना-

प्रश्न 3

- (i) नामू को उसकी माँ ने आदेश दिया था कि कुल्हाड़ी लेकर पलाश के पेड़ की छाल उतार लाओं। माँ के आदेश का पालन करते समय नामू ने यह विचार किया कि जब वह कुल्हाड़ी से पेड़ पर प्रहार करता था, तो एक आवाज पेड़ से निकलती थी, कहीं वह आवाज पेड़ की कराह तो नहीं थी? जब वह कुल्हाड़ी से पेड़ पर प्रहार करता होगा, तो पेड़ को पीड़ा भी तो होती होगी।
- (ii) घर आकर नामू ने पलाश की छाल माँ को सौंप दी और स्वयं घर से दूर कुल्हाड़ी लेकर जा बैठा। वहाँ बैठकर उसने अपना पैर रगड़ना शुरू किया। रगड़ के साथ पांव में पीड़ा भी होती थी, खून बहता था और नामू के मुँह से हल्की-हल्की चीखने की आवाज भी निकलती थी। यह सब उसने पेड़ की पीड़ा का अनुभव करने के लिए किया था।
- (iii) नामू जब घर लौटा तो उसके चेहरे पर पीड़ा की स्पष्ट रेखाएँ थी, मगर वह चुप था। माँ यह देख कर कुछ समझी नहीं। अचानक जब माँ यह देखकर कुछ समझी नहीं। अचानक जब माँ की दृष्टि उसके कपड़ों पर पड़ी जो खून से लाल हो चुके थे। यह देख माँ चिंतित हुई। नामू के पराएँ दुःख से दुःखी होकर उस दुःख का अनुभव करना वह भी एक पेड़ के लिए की बात जान कर माँ का हृदय भर आया था।
- (iv) दया, धर्म का भाव रखना और दूसरे के दुःख को महसूस करना संतो के स्वभाव की विशेषता होती है। आगे चलकर नामू संत नामदेव के नाम से महाराष्ट्र का प्रसिद्ध संत हुआ।
- (v) इस गद्यांश से हमें यह शिक्षा मिलती है कि आज अपने पर्यावरण को बचाने के लिए नामदेव जैसे संतो की आवश्यकता है, जिनके मन में न केवल जीवों के प्रति ही दया की भावना हो, बल्कि पेड़-पौधों के लिए भी अपनेपन का भाव हो। पेड़-पौधों की सुरक्षा इसलिए आवश्यक है क्योंकि मनुष्य की लालच ने आज धरती के अस्तित्व को ही संकट में डाल दिया है।

Question 4

Answer the following according to the instructions given:-

निम्नलिखित प्रश्नों के उत्तर निर्देशानुसार लिखिए :-

- (i) निम्नलिखित शब्दों से विशेषण बनाइए :-
नीति, साहित्य । [1]
- (ii) निम्नलिखित शब्दों में से किसी एक शब्द के दो पर्यायवाची शब्द लिखिए :-
मार्ग, माता । [1]
- (iii) निम्नलिखित शब्दों में से किन्हीं दो शब्दों के विपरीतार्थक शब्द लिखिए :-
निर्दोष, शांत, पतन, अंत । [1]
- (iv) निम्नलिखित मुहावरों में से किसी एक की सहायता से वाक्य बनाइए :-
आँखों पर पर्दा पड़ना, घुटने टेकना । [1]
- (v) भाववाचक संज्ञा बनाइए :-
ईश्वर, उत्तम । [1]
- (vi) कोष्ठक में दिए गए निर्देशानुसार वाक्यों में परिवर्तन कीजिए :-
- (a) असफल हो जाने पर, उसे भारी दुःख हुआ ।
(वाक्य शुद्ध कीजिए) [1]
- (b) परिश्रमी व्यक्ति विपत्तियों से नहीं घबराता है ।
(वचन बदलिए) [1]
- (c) जीवन-भर मैं इसी आचरण का पालन करता आया हूँ ।
(रेखांकित शब्दों के लिए एक शब्द लिख कर वाक्य को पुनः लिखिए) [1]

परीक्षकों की टिप्पणियाँ-

- (i) कुछ विद्यार्थी विशेषण शब्द का अर्थ ही नहीं समझ पाये। छात्रों ने वर्तनी संबन्धी अशुद्धियाँ बहुत की। कुछ बच्चों को विशेषण तो आते थे परंतु वर्तनी की अशुद्धियों के कारण अंक प्राप्त नहीं कर पाए। कुछ ने नीति शब्द का नीतिज्ञ भी लिखा जो कि संज्ञा है। साहित्यिक शब्द में अधिकतर विद्यार्थियों वर्तनी सम्बंधी त्रुटि की।
- (ii) अधिकांश विद्यार्थियों ने पर्यायवाची शब्द ठीक लिखे। कुछ छात्रों ने एक शब्द के स्थान पर दोनों शब्दों के एक-एक पर्यायवाची लिख दिये। केवल माँ शब्द के लिए दैशज शब्दों को प्रयोग किया है। वर्तनी सम्बंधी त्रुटियाँ अधिक पाई गई।
- (iii) इस प्रश्न में सभी शब्द अत्यन्त सरल थे अतः अधिकांश छात्रों ने सही विलोम शब्द लिखे। कुछ छात्रों ने शांत का विलोम उग्र लिखा। पतन के लिए उन्नति व उत्कर्ष भी लिखा। पतन शब्द के विपरीतार्थक में भ्रमित रहे।
- (iv) अधिकांश विद्यार्थी मुहावरे के अर्थ को लेकर भ्रमित रहे, इसीलिए वाक्य संरचना में अशुद्धियाँ देखी गई। वाक्य रचना में वर्तनी की अशुद्धियाँ तथा व्याकरण सम्बंधी त्रुटियाँ पाई गई।
- (v) अधिकतर छात्र भाववाचक संज्ञा के ज्ञान का अभाव होने के कारण उचित शब्द नहीं लिख पाए। कुछ छात्रों ने भाववाचक संज्ञा बनाने के स्थान पर विशेषण शब्दों का प्रयोग किया है। बहुत कम विद्यार्थियों ने दोनों भाववाचक संज्ञाएँ सही लिखी है। ईश्वर का ऐश्वर्य के स्थान पर एश्वर्य लिख दिया है।
- (vi) (a) अधिकतर विद्यार्थियों ने वाक्य परिवर्तन उचित रीति से नहीं किया। विद्यार्थियों ने 'भारी' शब्द के स्थान पर परिवर्तन करने के स्थान पर वाक्य के प्रथम भाग में किया 'सफल न होने पर'। कुछ छात्रों ने भारी के स्थान पर समुचित शब्द का प्रयोग नहीं किया। कुछ छात्रों ने 'असफलता', 'दुःखी' शब्द का प्रयोग किये।

अध्यापकों के लिए सुझाव-

- विद्यार्थियों को विशेषण शब्दों का प्रचुर अभ्यास करवाया जाना चाहिए। इसका निरंतर लिखित एवं मौखिक अभ्यास करवाना चाहिए।
- विशेषण बनाना सिखाते समय सही वर्तनी पर भी विशेष बल दिया जाना चाहिए।
- पर्यायवाची शब्दों के ज्ञान के लिए पाठ पढ़ते समय भी समानार्थक शब्दों की जानकारी देनी चाहिए।
- विद्यार्थियों को अधिक से अधिक विलोम शब्द याद करवाए जाएँ तथा इनका मौखिक एवं लिखित अभ्यास भी करवाया जाए।
- कक्षा में विलोम शब्द बताते समय इस बात पर विशेष ध्यान देने का निर्देश दें कि जिस शब्द के लिए जो विलोम निश्चित है वही विलोम शब्द लिखा जाए।
- मुहावरों के प्रयोग का अधिक से अधिक अभ्यास करवाया जाना चाहिए। विद्यार्थियों को यह भी बताया जाये कि इसके प्रयोग से वाक्य सौन्दर्य में वृद्धि होती है।
- वाक्य संरचना के समय शब्दों के अनुरूप प्रयोग का अभ्यास कराना चाहिए। वर्तनी की अशुद्धियों की ओर भी छात्रों का ध्यान दिलाना चाहिए।
- भाववाचक संज्ञा का विशेष अध्ययन करवाना चाहिए। मात्र अध्ययन ही नहीं बल्कि उनका लिखित अभ्यास आवश्यक है।
- छात्रों के भाषा ज्ञान में वृद्धि के लिए लगातार प्रयत्न किया जाना चाहिए।
- प्रश्न को एकाग्रचित से पढ़ने का निर्देश दिया जाना चाहिए।

- (b) (.) अनुस्वार न लगाने के कारण अधिकतर छात्रों को अंक नहीं मिले। कुछ छात्रों ने विपत्ति की वर्तनी अशुद्ध की।
- (c) अधिकांश छात्र 'जीवन भर' के लिए सही एक शब्द नहीं लिख पाए। जीवन भर के लिए एक शब्द के लिए जीवन भर के लिए एक शब्द 'आजीवन' लिखने में अधिकतर छात्र भ्रमित रहे। वर्तनी तथा व्याकरण की अशुद्धियाँ पायी गई हैं।

- कक्षा में अभ्यास कराते समय वर्तनी तथा भाषा संबन्धी सुधार पर विशेष बल दिया जाना चाहिए।
- निर्देशानुसार वाक्य परिवर्तन में निर्देशों को ध्यानपूर्वक पढ़ने का बार-बार निर्देश दिया जाना चाहिए।
- एकवचन, बहुवचन भी याद करवाये जायें। वाक्य परिवर्तन करवाते समय लिंग, वचन और काल की पूर्ण जानकारी देना अत्यन्त आवश्यक हैं।
- अनुस्वार का प्रयोग उचित स्थान पर आवश्यक है। अतः विद्यार्थियों को ऐसा निर्देश दिया जाना चाहिए ताकि वे पूर्ण रूप से इसका ध्यान रखें।
- वाक्य में प्रयुक्त शब्दों के सही विलोम शब्द के प्रयोग का स्पष्ट निर्देश दें।
- व्याकरण का अधिकाधिक, नियमित व लिखित अभ्यास करवाएँ।

अंक योजना-

प्रश्न 4

- (i) विशेषण बनाइए-
नीति-नैतिक ।
साहित्य- साहित्यिक ।
- (ii) दो पर्यायवाची शब्द लिखिए-
मार्ग- सड़क, पथ, रास्ता ।
माता- जननी, माँ, अम्बा ।
- (iii) विपरीतार्थक शब्द लिखिए-
निर्दोष-दोषी
शांत - अशांत
पतन - उत्थान
अंत - प्रारम्भ
- (iv) मुहावरे-

आँखों पर पर्दा पड़ना - (सच्चाई दिखाई न पड़ना) अत्यधिक प्रेम ने मोहन के माता-पिता की आँखों पर पर्दा डाल दिया है, जिसके कारण उसकी गलतियाँ उन्हें नजर नहीं आती है।

घुटने टेकना - (हार स्वीकार कर लेना) सुरक्षा सेनाओं की कड़ी कार्यवाही को देखकर आतंकवादियों ने घुटने टेक दिए।

(v) भाववाचक संज्ञा-

ईश्वर - ईश्वरीय / ऐश्वर्य

उत्तम - उत्तमता

(vi) (a) असफल हो जाने पर उसे बहुत दुःख हुआ।

(b) परिश्रमी व्यक्ति विपत्तियों से नहीं घबराते हैं।

(c) आजीवन मैं इसी आचरण का पालन करता आया हूँ।

गद्य संकलन

Question 5

Read the extract given below and answer in Hindi the questions that follow:-

निम्नलिखित गद्यांश को पढ़िए और उसके नीचे लिखे प्रश्नों के उत्तर हिन्दी में लिखिए:-

श्रीमती जी कुछ रूआँसें स्वर में बोली-“इसी विश्वास ने तो सब कुछ चौपट कर रखा है। ऐसे ही विश्वास पर सब बैठ जाँएँ, तो काम कैसे चले? सब विश्वास पर ही बैठे रहे, तो आदमी काहे को किसी बात के लिए चेष्टा करे? ”

-ताई-

लेखक-विश्वम्भरनाथ शर्मा 'कौशिक'

(i) श्रीमती जी कौन हैं? उनका परिचय दीजिए।

[2]

(ii) उपर्युक्त वाक्य किससे कहा गया है तथा उस व्यक्ति का विश्वास क्या है?

(iii) वक्ता के दुःख का कारण क्या? अपने इस दुःख का कारण वह किसे मानती है तथा क्यों?

[3]

(iv) प्रस्तुत कहानी का उद्देश्य स्पष्ट करें।

परीक्षकों की टिप्पणियाँ

- (i) अधिकांश विद्यार्थियों ने इस प्रश्न के प्रथम भाग का उत्तर तो ठीक लिखा पर कुछ विद्यार्थियों ने ताई या रामेश्वरी के स्थान पर रामजीदास की पत्नी लिखा है।
- (ii) प्रश्न का प्रथम भाग सही था। कुछ विद्यार्थी प्रश्न का द्वितीय भाग उस व्यक्ति के विश्वास में भ्रमित रहे।
- (iii) अधिकांश विद्यार्थियों ने प्रश्न के प्रथम और द्वितीय भाग के सटीक उत्तर दिये। कुछ छात्र प्रश्न के तृतीय भाग में दुःख का कारण बताने में भ्रमित रहे।
- (iv) कुछ विद्यार्थी उद्देश्य में एक ही बात की पुनरावृत्ति करते रहे। कुछ विद्यार्थियों ने पूरी कहानी लिख दी। परंतु उद्देश्य नहीं बताया।

अभ्यापकों के लिए सुझाव-

- ऐसे पाठों को पढ़ाते समय विद्यार्थियों को यह बात स्पष्ट रूप से बतानी चाहिए कि कहानी पढ़ने के बाद मुख्य बिन्दु को लिखना आवश्यक है ही परंतु उत्तर पूर्ण तभी होता है जबकि सहायक भाग भी लिखे जाएं।
- विद्यार्थियों को निर्देश दिया जाना चाहिए कि वे प्रत्येक प्रश्न को ध्यानपूर्वक पढ़ें और सोच विचार कर उत्तर दें।
- प्रश्न के सभी भागों का अलग अलग उत्तर लिखना सिखाया जाना चाहिए।
- प्रश्नानुसार उत्तर लिखने का नियमित अभ्यास करवाना चाहिए।
- पाठ में आए मुहावरों व कठिन शब्दों का स्पष्ट अर्थ बताना चाहिए ताकि विद्यार्थी उत्तर लिखते समय उलझनों से बच सकें।
- छोटे छोटे प्रश्न पूछकर उनसे मौखिक उत्तर का अभ्यास कराना चाहिए जिससे कई संदर्भ आसानी से याद हो सकें।
- विचारात्मक प्रश्नों का अधिकाधिक अभ्यास करवाना चाहिए।
- पाठ का उद्देश्य अत्यंत महत्वपूर्ण होता है। अतः उसकी ओर विद्यार्थियों का ध्यान दिलाना विशेष आवश्यक है।

अंक योजना-

प्रश्न 5

- (i) श्रीमती जी रामेश्वरी है। वह बाबू रामजी दास की पत्नी है। वह अपने पति रामजी दास के अपने देवर के बच्चों के प्रति स्नेह एवं वात्सल्य को देखकर हमेशा चिढ़ी सी रहती थी।
- (ii) उपर्युक्त वाक्य रामेश्वरी द्वारा अपने पति रामजीदास से कहा गया है। रामजीदास का विश्वास था कि पूजा-पाठ-व्रत सब ढकोसला है। जो वस्तु भाग्य में नहीं, वह पूजा-पाठ से नहीं प्राप्त हो सकती।
- (iii) वक्ता (रामेश्वरी) के दुःख का कारण उसकी संतान का न होना था, अपने दुःख का कारण वह

(iv) प्रस्तुत पाठ में 'कौशिश' जी ने समाज के व्याप्त अनेक छोटी-मोटी समस्याओं को हमारे सम्मुख उजागर किया है। कहानी में संतानहीन नारियों को उपदेश देते हुए उन्होंने कहा कि उन्हें हर समय संतान के अभाव से ईर्ष्या भाव से औरों की संतान को देखकर जलते कुड़ते नहीं रहना चाहिए, दूसरों के बच्चों को अधिक से अधिक प्यार करना चाहिए। बच्चे तो प्यार के भूखे होते हैं। आप उन्हें जितना प्यार देंगे उतना ही अधिक आप उनसे प्रभावित होंगे। इस तरह आपको संतान का अभाव नहीं होगा और दूसरों की संतान भी अपनी ही लगेगी।

Question 6

Read the extract given below and answer in Hindi the questions that follow:—

निम्नलिखित गद्यांश को पढ़िए और उसके नीचे लिखे प्रश्नों के उत्तर हिन्दी में लिखिए:-

“हमारे विद्वान पाठकों में से कोई होता तो उन मूर्खों को समझाता-“यह संसार क्षण-भंगुर है। इसमें दुःख क्या और सुख क्या है? जो जिसमें बनता है, वह उसी में लय हो जाता है-इसमें शोक उद्वेग की क्या बात है?”

- खेल-

लेखक - जैनेन्द्र

- (i) पानी में कौन खेल रहा था? वह जब पानी का खेल छोड़कर मुड़ा, तो उसने क्या देखा? [2]
- (ii) 'सुरबाला कौन है ? उसके दुःख का कारण क्या था? [2]
- (iii) संसार को 'क्षण-भंगुर' क्यों कहा जाता है ? सुरबाला क्या देखकर मौन हो गयी थी? उसे किस चीज ने पिघला दिया था? [3]
- (iv) सिद्ध कीजिए कि 'खेल' कहानी में बालपन की सरलता का चित्रण किया गया है। इस कहानी के माध्यम से लेखक ने किस सत्य को उजागर किया है? [3]

परीक्षकों की टिप्पणियाँ-

- (i) अधिकांश छात्रों द्वारा सही उत्तर दिया गया। प्रश्न का प्रभाव भाग सही लिखा था, द्वितीय भाग में भाड़ शब्द को लेकर भ्रमित हुए। भाड़ के स्थान पर महल, कुटी, घर आदि लिख दिया।
- (ii) इस प्रश्न का उत्तर प्रायः सभी विद्यार्थियों ने सही लिखा। कुछ विद्यार्थी प्रश्न के द्वितीय भाग को स्पष्ट करने में भ्रमित रहे। प्रश्न के द्वितीय भाग के भाड़ के स्थान पर महल, कुटी आदि लिखा है।

अध्यापकों के लिए सुझाव-

- विशेष पाठों की विशेष व्याख्या की आवश्यकता को समझते हुए सभी छोटी बड़ी बातों पर विशेष ध्यान दें। पाठ का निबंध के रूप में होने के कारण विद्यार्थियों में पाठ के प्रति रूचि जाग्रत करनी चाहिए।
- पाठ से सम्बन्धित मुख्य बिन्दुओं को कक्षा में बार-बार दोहराया जाना चाहिए ताकि विद्यार्थियों को याद हो सके।
- पाठ से जुड़ी हुई कहानियों की विस्तार से जानकारी देनी चाहिए तथा समय-समय पर उसकी जानकारी विद्यार्थियों से लेनी चाहिए।

- (iii) कुछ विद्यार्थी क्षण-भंगुर शब्द का अर्थ स्पष्ट करने में असमर्थ रहे तथा कुछ छात्र मौन होना पिघल जाना शब्द को स्पष्ट नहीं कर पाए। कुछ विद्यार्थियों ने क्षण-भंगुर में वस्तु के नष्ट होने के स्थान पर सुख-दुःख के विषय में लिखा। जीवन में सुख-दुःख आते हैं। इसलिए संसार क्षण-भंगुर है।
- (iv) कुछ छात्रों केवल बालपन की सरलता का ही वर्णन कर पाए तो कुछ विद्यार्थी पाठ में नीहित सत्य को अधिक स्पष्ट नहीं कर पाए। कुछ छात्रों ने बालपन की सरलता का चित्रण करने की अपेक्षा कहानी का उद्देश्य लिख दिया। मुख्य-बिंदु अपेक्षाकृत कम लिखे गए।

अध्यापकों के लिए सुझाव-

- तुलनात्मक प्रश्नों का अभ्यास कक्षा में करवाना चाहिए ताकि विद्यार्थी इस शैली को सीख सकें और स्पष्ट लिख सकें।
- विद्यार्थियों से निबंध रूपी पाठों को बार-बार पढ़ने के लिए कहना चाहिए तथा उसे समझने पर बल देना चाहिए।
- पाठ में आनेवाले विशिष्ट शब्दों के अर्थ की जानकारी विद्यार्थियों को देनी चाहिए।
- कक्षा में बार-बार यह बात बतानी चाहिए कि प्रश्न के लिए जितने अंक निर्धारित हैं उसी के अनुरूप उत्तर का विस्तार किया जाना चाहिए।

अंक योजना-

प्रश्न 6

- (i) पानी में मनोहर खेल रहा था, वह सुरबाला का मित्र है जोकि उससे दो साल बड़ा है। वह जिद्दी एवं दंगई स्वभाव का है।
वह जब पानी का खेल छोड़कर मुड़ा तो उसने देखा कि सुरबाला अपने द्वारा बनाये गये रेत के सुन्दर भाड़ को एकटक देख रही थी।
- (ii) सुरबाला सात वर्ष की बालिका है, वह मनोहर की मित्र है। उसका बाल मन कोमल और सच्ची भावनाओं से भरा हुआ है। सुरबाला गंगा के तट पर रेत का भाड़ बनाती है, भाड़ बनाते समय उसके मन में अनेक कल्पनाएँ थीं। पर जब मनोहर द्वारा भाड़ तोड़ दिया जाता है तो उसकी सारी कल्पनाएँ दुःख में बदल जाती हैं।
- (iii) संसार को क्षण-भंगुर इसलिए कहा जाता है क्योंकि जो एक पल में बनता है वह दूसरे क्षण में नष्ट हो जाता है। जो इसमें बनता है, वह इसी में मिल जाता है। इसलिए इस बात पर शोक करने की बात नहीं है। सुरबाला अपने टूटे हुए भाड़ को देखकर रूठ गई। इसलिए वह मौन हो गयी।

मनोहर की आवाज में कम्पन्न में रोने के स्वर को सुरबाला के अंतर्मन ने पहचान लिया। अतः वह जल्द ही पिघल गयी और उसका क्रोध शांत हो गया। मनोहर ने जैसे ही सुरबाला द्वारा बनाये गये भाड़ को तोड़ने के लिए पछतावा प्रकट किया, सुरबाला का क्रोध प्रेम में बदल गया।

(iv) 'खेल' एक मनोवैज्ञानिक कहानी है। इसमें लेखक ने सुरबाला और मनोहर के माध्यम से बालपन की सरलता को स्पष्ट करते हुए बताया है कि किस प्रकार बच्चों का मन कोमल स्वभाव का होता है। उनका क्रोध एक क्षण का होता है। वे थोड़ी देर के बाद सबकुछ भूलकर पहले की तरह ही खेलने लगते हैं।

इस कहानी में भी इसी प्रकार जब मनोहर सुरबाला के द्वारा बनाये हुए भाड़ को तोड़ देता है और सुरबाला रुठ जाती है। उसे मनाने के लिए यह सुरबाला के कहने पर वैसा ही भाड़ बनाता है और फिर सुरबाला मनोहर के बनाये हुए भाड़ को लात मारकर तोड़ देती है। फिर दोनों हँसने लगते हैं और मिलकर खेलने लगते हैं।

लेखक ने इस कहानी के माध्यम से लोगों को जीवन के सत्य से भी उजागर करवाया है कि यह संसार नश्वर है। आज नहीं तो कल यह मिट्टी में मिलकर नष्ट हो जायेगा। इसके लिए शोक करना व्यर्थ है।

Question 7

Read the extract given below and answer in Hindi the questions that follow:—

निम्नलिखित गद्यांश को पढ़िए और उसके नीचे लिखे प्रश्नों के उत्तर हिन्दी में लिखिए:-

“मतलब साफ है, एकदम साफ कि जहाँ एक युवक ने अपने काम से अपने देश का सिर ऊँचा किया था, वहीं एक युवक ने अपने काम से अपने देश के मस्तक पर कलंक का ऐसा टीका लगाया, जो जाने कितने वर्षों तक संसार की आँखों में उसे लांछित करता रहा”

– मैं और मेरा देश–

लेखक – कन्हैयालाल मिश्र 'प्रभाकर'

(i) देश का सिर ऊँचा करने वाला युवक किस देश का नागरिक था ? उसने किस प्रकार अपने देश का सिर ऊँचा किया? [2]

(ii) देश के मस्तक का कलंक का टीका लगाने वाला युवक कौन था? उसने क्या किया था? [2]

(iii) उक्त दोनों घटनाओं से क्या स्पष्ट होता है? आप अपने देश का गौरव बढ़ाने के लिए क्या-क्या कर सकते हैं? [3]

(iv) 'महत्व किसी कार्य की विशालता में नहीं होता, उस कार्य को करने की भावना में होता है।'—प्रस्तुत पाठ के आधार पर इस पंक्ति की समीक्षा कीजिए। [3]

परीक्षकों की टिप्पणियाँ—

(i) अधिकांश विद्यार्थियों ने इस प्रश्न को भली प्रकार से किया है। कुछ छात्रों ने 'जापान' के स्थान पर भारत लिखा। घटना— पुस्तकालय वाली लिखी।

(ii) पाठ में देश का नाम न दिया होने के कारण विद्यार्थी उत्तर देने में भ्रमित रहे पर कुछ विद्यार्थी ने दूसरे देश का विद्यार्थी बताकर उत्तर स्पष्ट किया।

कुछ छात्रों ने प्रश्न के द्वितीय भाग में कहानी ठीक लिखी परंतु प्रथम भाग में विदेशी युवक के स्थान पर कुछ बच्चों ने भारतीय लिखा जो कि गलत था।

(iii) छात्रों को प्रश्न स्पष्ट था लेकिन अपनी बात को स्पष्ट करने के लिए उदाहरण का अभाव देखा गया। कुछ बच्चों ने ऊपर से अवतरण ही उतार दिया क्योंकि उसमें भाव आ रहा था। अपने शब्दों में प्रश्न का उत्तर नहीं दिया। द्वितीय भाग का उत्तर सही लिखा है। कुछ छात्रों ने गौरव बढ़ाने वाले कार्य पाठ से बाहर के लिखे। मुख्य बिन्दुओं का अभाव था।

(iv) अधिकांश बच्चों ने या तो भाव स्पष्ट किया या फिर उदाहरण ही दिया दोनों बातें लिखने का कार्य कुछ ही बच्चों ने किया। कुछ छात्रों ने उक्ति का अर्थ स्पष्ट नहीं किया। कुछ छात्रों ने प्रसंग पाठ 'श्रम की प्रतिष्ठा' से जोड़ दिया। श्रीकृष्णजी वाला। निम्नस्तर के छात्रों ने इस प्रश्न के उत्तर में जापान में घटित दोनों बातों का वर्णन किया।

अध्यापकों के लिए सुझाव—

—अध्यापकों को पाठ में आए सभी कठिन और सरल शब्दों का अर्थ कक्षा में बताना चाहिए जिससे विशेष सन्दर्भ में विद्यार्थी शब्दों का प्रयोग सही तरह से कर सकें।

—उत्तर में मूल बिन्दुओं की महत्ता अध्यापकों को कक्षा में स्पष्ट कर देना चाहिए।

—ऐसे रोचक तथा सरल पाठों की पुनरावृत्ति कक्षा में करवानी चाहिए जिससे छोटी-छोटी घटनाएँ विद्यार्थियों को सरलता से याद रह सकें।

—समय-समय पर मौखिक तथा लिखित परीक्षा लेकर विद्यार्थियों को चरित्रों के नाम तथा उनकी चारित्रिक विशेषताएँ याद करवानी चाहिए।

अध्यापकों के लिए सुझाव—

—शिक्षक को यह बात विद्यार्थियों को स्पष्ट रूप से समझानी चाहिए कि प्रश्न जितने भागों में बँटा है उत्तर वैसे ही अलग-अलग भागों में लिखा जाए।

—वर्तनी सम्बन्धी अशुद्धियों को भी कक्षा में नियमित अभ्यास के द्वारा दूर करने का प्रयास करना चाहिए।

—कक्षा में रोचक क्रियाएँ करवाकर व अभिव्यक्ति दिलाकर विद्यार्थियों को पाठ के भाव का अध्ययन कराना चाहिए।

—संवादों के आधार पर प्रश्न पूछकर भी अभ्यास कराना चाहिए।

अंक योजना-

प्रश्न 7

- (i) देश का सिर ऊँचा करने वाला युवक जापान देश का नागरिक था। उस युवक ने जब स्वामी रामतीर्थ के मुँह से यह सुना कि “जापान में शायद अच्छे फल नहीं मिलते”- तो वह भागकर ताजे फलों की एक टोकरी ले आया। फल लेकर स्वामी जी ने दाम चुकाना चाहा तो युवक ने मना कर दिया। जब बहुत आग्रह किया गया तो जापानी युवक बोला कि यदि दाम चुकाना ही है तो वह यह कि स्वामी जी अपने देश में जाकर किसी से यह न कहें कि जापान में अच्छे फल नहीं मिलते। अतः उसने अपने देश को हीन होने से बचाकर देश का सिर ऊँचा किया।
- (ii) कलंक का टीका लगाने वाला युवक विदेशी था जो जापान में शिक्षा लेने आया था। एक दिन उसने सरकारी पुस्तकालय से प्राप्त पुस्तक में से कुछ दुर्लभ चित्र निकालकर पुस्तक लौटा दी। किसी जापानी विद्यार्थी ने यह सब देखा तो उसकी शिकायत पुस्तकालय में कर दी। पुलिस ने तलाशी लेकर वे चित्र विद्यार्थी के कमरे से बरामद कर लिये।
- (iii) अपने देश की गौरव को बढ़ाने के लिए हमें ऐसा कोई कार्य नहीं करना चाहिए जिससे हमारे देश की स्वतंत्रता और सम्मान को ठेस पहुँचे। सार्वजनिक स्थलों पर कभी भी हमारे देश को हीन तथा अन्य देशों को श्रेष्ठ नहीं बताना चाहिए। अपने घर, गली, सार्वजनिक स्थलों पर गंदगी नहीं करना चाहिए। जब कभी चुनाव हो तो हमें मत योग्य व्यक्ति को देना चाहिए। कभी भी किसी गलत प्रलोभन में न आकर किसी गलत व्यक्ति को अपना मत नहीं देना चाहिए।
- (iv) किसी भी कार्य का महत्व उस कार्य की विशालता से नहीं, अपितु उस कार्य का महत्व उस कार्य को करने की भावना में है। भावना के अभाव में बड़े से बड़े काम हीन तथा भावना के साथ किया गया छोटे से छोटा काम भी महान बन जाता है।

चन्द्रगुप्त विक्रमादित्य

लेखक-प्रकाश नगायच

Question 8

Read the extract given below and answer in Hindi the questions that follow:—

निम्नलिखित गद्यांश को पढ़िए और उसके नीचे लिखे प्रश्नों के उत्तर हिन्दी में लिखिए:-

“उसे विश्वास हो गया था कि यदि रामगुप्त को मगध के राज-सिंहासन से न हटाया गया तो गुप्त साम्राज्य के साथ-साथ गुप्त वंश का गौरव, मान-मर्यादा सभी कुछ नष्ट हो जाएँगे।”

- (i) यहाँ ‘उसे’ शब्द का सम्बन्ध किस व्यक्ति के लिए किया गया है? उसका संक्षिप्त परिचय दीजिए। [2]
- (ii) रामगुप्त को मगध के राज-सिंहासन से हटाये जाने की आवश्यकता क्यों अनुभव की जा रही थी? [2]
- (iii) रामगुप्त का क्या निर्णय था? यह व्यक्ति इस समय रामगुप्त का विरोध क्यों नहीं कर पा रहा था? [3]

- (iv) मगध साम्राज्य की तत्कालीन परिस्थिति कैसी थी? सिद्ध कीजिए कि कायर व अयोग्य भासक दे । के मान-सम्मान व गौरव को सुरक्षित रखने में असमर्थ होता है।

[3]

परीक्षकों की टिप्पणियाँ-

- (i) प्रश्न पूर्णतया स्पष्ट था अधिकांश छात्रों ने समुचित उत्तर दिया। कुछ बच्चों नाम से भ्रमित रहे इसलिए परिचय में भी गलत वर्णन किया गया।
- (ii) अधिकांश छात्रों ने समुचित उत्तर दिया। कुछ छात्र मुख्य बिन्दु लिखने में असफल रहे। रामगुप्त को सिंहासन से हटाये जाने की आवश्यकता का स्पष्ट रूप से वर्णन कर पाने में कुछ बच्चों असमर्थ रहे।
- (iii) कुछ विद्यार्थियों ने रामगुप्त का निर्णय स्पष्ट नहीं किया तथा विरोध का कारण भी स्पष्ट नहीं कर पाए। कुछ छात्र ने इस प्रश्न के उत्तर में मुख्य बिन्दु कम लिखे है। कुछ विद्यार्थियों द्वारा इस प्रश्न का समुचित उत्तर दिया गया। कुछ छात्रों ने इस उत्तर के शर्ते स्पष्ट नहीं की।
- (iv) अधिकांश छात्रों ने प्रश्न का प्रथम भाग सही लिखा तो द्वितीय भाग का साधारण उत्तर दिया। जबकि रामगुप्त का प्रसंग देकर उत्तर लिखना चाहिए था। कायर तथा अयोग्य शासक की बात को कुछ बच्चों भली प्रकार स्पष्ट नहीं कर पाए। कुछ विद्यार्थियों द्वारा इस प्रश्न का समुचित उत्तर नहीं दिया गया।

अंक योजना-

प्रश्न 8

- (i) उपर्युक्त सन्दर्भ में 'उसे' सर्वनाम का प्रयोग चन्द्रगुप्त के लिए किया गया है। वह मगध-सग्राट समुद्रगुप्त का छोटा पुत्र था। उसकी वीरता, साहस व दूरदर्शिता का अनुभव करके ही मगध सग्राट ने बड़े पुत्र रामगुप्त की बजाए छोटे पुत्र चन्द्रगुप्त को युवराज घोषित किया था। सग्राट समुद्रगुप्त की मृत्यु के बाद चन्द्रगुप्त की अनुपस्थिति में रामगुप्त स्वयं राज-सिंहासन पर अधिकार पाने में सफल हो गया था। रामगुप्त तथा शिखर स्वामी के कर्मों को ध्यान में रखते हुए और उनके वर्तमान विचारों को सुनते हुए चन्द्रगुप्त का दुःख व चिन्ता बढ़ने लगी थी।
- (ii) रामगुप्त को मगध के सिंहासन से हटाया जाना अति आवश्यक हो गया था। वह एक कायर व

अध्यापकों के लिए सुझाव-

- पूर्ण रूप से उपन्यास के पठन के साथ-साथ पुनरावृत्ति भी की जानी चाहिए। बार-बार आवृत्ति होने से घटनाक्रम छात्रों को भ्रमित नहीं करते और सिलसिलेवार याद हो जाते हैं।
- वर्तनी सम्बन्धी अशुद्धियों के लिए नियमित अभ्यास करवाना चाहिए।
- उपन्यास की पृष्ठभूमि ऐतिहासिक है अतः छात्रों को ऐतिहासिक परिप्रेक्ष्य में कुछ सन्दर्भ बताया जाना चाहिए।
- राजनैतिक परिस्थितियों से भी छात्रों को अवगत कराना चाहिए।
- कठिन शब्दों के अर्थ कक्षा में बताया जाना चाहिए जिससे उनके अर्थ समझते समय छात्र उलझन में न पड़ें।
- उपन्यास में प्रयुक्त बिन्दुओं को रेखांकित कराने व उसे समझाने पर अधिक बल दें।
- विचारात्मक प्रश्नों का अभ्यास कक्षा में करवायें।

अन्यायी राजा था। उसे शिक्षा, ज्ञान-विज्ञान व कलाओं से कोई लगाव न था। उसके शिखर स्वामी जैसे सलाहकार मंत्री व सेनापति भी चापलूसी में विश्वास रखते थे और अपना स्वार्थ सिद्ध करने में लगे हुए थे। वह न तो अपने साम्राज्य की रक्षा-सुरक्षा कर सकता है और न ही प्रजा की नारियों की मान-मर्यादा को सम्मान के योग्य समझता है। उसमें संघर्ष की शक्ति नहीं थी।

- (iii) कायर रामगुप्त मंत्री परिषद में दूत के माध्यम से भेजे गये, शकराज के प्रस्ताव का कि महादेवी ध्रुवस्वामिनी और मगध के सामन्तों की पत्नियों को उसके अन्तःपुर में भेज दिया जाए, अन्यथा युद्ध के लिए रामगुप्त तैयार रहे। रामगुप्त अपनी कायरता के कारण यह प्रस्ताव स्वीकार कर लेता है। वह युद्ध की चुनौती को स्वीकार नहीं करता और राष्ट्र-रक्षा की दुहाई देकर ध्रुवस्वामिनी और सामान्तों की स्त्रियों को शकराज के लिए उपहार स्वरूप देने का निर्णय लिया था। चन्द्रगुप्त इस समय रामगुप्त का विरोध इसलिए नहीं कर पा रहा था क्योंकि यदि वह विरोध प्रकट करता। तो सम्भव था कि रामगुप्त उसका साथ न देते।
- (iv) अयोग्य शासक रामगुप्त के राज-सिंहासन पर बैठने के कारण मगध साम्राज्य की जड़े खोखली होती जा रही थी। कायर व अयोग्य शासक से कोई भी भयभीत नहीं होता था और न ही ऐसे राजा का कौं सम्मान करता था। रामगुप्त ने अपने पिता सम्राट समुद्रगुप्त द्वारा स्थापित महान मूल्यों की ओर कोई ध्यान नहीं दिया। इसके विपरीत वह नीति व न्याय के विरुद्ध शासक चला रहा था। रामगुप्त एक कायर व अयोग्य व्यक्ति था जो केवल अपने प्राणों को सुरक्षित कर सकने की नीति पर चल रहा था। उसे अपने गुप्त वंश के गौरव का कोई ध्यान नहीं था। वह राज्य तथा प्राण के हितों की चिन्ता कभी नहीं करता। उसे नारी-जाति की मान-मर्यादा का कोई मोह नहीं। वह गुप्त वंश की श्रेष्ठ साधनाओं तथा संस्कृति के विपरीत व्यवहार कर रहा था।

Question 9

Read the extract given below and answer in Hindi the questions that follow:—

निम्नलिखित गद्यांश को पढ़िए और उसके नीचे लिखे प्रश्नों के उत्तर हिन्दी में लिखिए:-

“लेकिन देवसेना, मैं अपने इस वचन का पालन न कर सका। रामगुप्त को संसार कायर कहता है, लेकिन रामगुप्त कायर नहीं है चन्द्रगुप्त जिसने अपने वचन का पालन न कर चुपचाप इतने बड़े अन्याय को सह लिया”

- (i) प्रस्तुत कथन का वक्ता कौन है? उसके एवं उसके पिता के विचारों में क्या समानता थी? [2]
- (ii) वक्ता किस वचन की ओर संकेत कर रहा है? उस वचन का पालन क्यों नहीं किया जा सका? [2]
- (iii) रामगुप्त कौन है? संसार उसे कायर क्यों कहता है? [3]
- (iv) ‘परिस्थितियाँ वीर पुरुष को भी लाचार बना देती है’
- प्रस्तुत पंक्ति को आधार बनाकर एक अनुच्छेद में अपने विचार दीजिए।

परीक्षकों की टिप्पणियाँ-

- (i) इस प्रश्न का उत्तर लगभग सभी छात्रों ने सटीक लिखा है। प्रश्न स्पष्ट होन के कारण अधिकांश छात्रों ने स्पष्ट उत्तर लिखा है।
- (ii) प्रश्न के प्रथम भाग का उत्तर अधिकांश छात्रों ने सही लिखा है, पर दूसरे भाग का उत्तर कुछ छात्रों ने सटीक नहीं लिखा है। अधिकांश बच्चों वचन को लेकर भ्रमित दिखाई दिए तथा वचन के पालन को स्पष्ट नहीं कर पाए।
- (iii) अधिकांश छात्रों ने उत्तर सही लिखा है। कुछ छात्र रामगुप्त की कायरता को स्पष्ट नहीं कर पाए।
- (iv) अधिकांश छात्र ने इस प्रश्न का सामान्य उत्तर लिखा जबकि इसमें चन्द्रगुप्त का उदाहरण देकर उत्तर को और अधिक प्रभावी बनाया जा सकता था। कुछ छात्रों ने सन्दर्भ में सही प्रकार से उत्तर दिया है। कुछ छात्रों द्वारा परिस्थिति तथा लाचारी के स्थान पर साधारण उत्तर ही लिख पाए। कुछ बच्चों द्वारा मुख्य बिन्दु अपेक्षाकृत कम लिखे गए। उक्ति का अर्थ स्पष्ट नहीं किया गया।

अध्यापकों के लिए सुझाव-

- विद्यार्थियों को उपन्यास के आधार पर ऐसे तथ्यों से भी अवगत कराया जाय जिससे वे अपनी तर्क शक्ति के आधार पर ऐसे प्रश्नों का उत्तर देने में सक्षम हो सकें।
- उपन्यास में प्रयुक्त मुख्य बिन्दुओं की ओर ध्यान दिलाया जाए जिससे उनके अध्ययन में गहनता आए।
- छात्रों को विचारात्मक प्रश्नों का अधिकाधिक अभ्यास करवाया जाना चाहिए।
- प्रश्न के सभी भागों का अलग-अलग उत्तर लिखना सिखाया जाना चाहिए।
- विद्यार्थियों को उपन्यास की घटनाओं की जानकारी विस्तार से दी जानी चाहिए तथा बीच-बीच में घटनाओं की आवृत्ति करवायी जाये तो याद रखने में सरलता होगी।
- उपन्यास के मुख्य बिन्दुओं को लिखवाकर याद करवाया जाना चाहिए जिससे छात्र उत्तर लिखते समय भ्रमित न हो।
- अध्यापकों को उपन्यास के प्रत्येक अंक को आधार बनाकर अलग-अलग प्रश्न करना चाहिए जिससे अंक को अलग करने में छात्र भ्रमित न हों।
- स्पष्ट भाषा व शुद्ध वर्तनी का ध्यान रखना भी आवश्यक है जिससे छात्रों का अभ्यास पूरा हो सके।
- चारित्रिक विशेषता बताने वाले प्रश्नों का अभ्यास करवाना चाहिए तथा दो चरित्र में तुलनात्मक व्याख्या करना भी सिखाया जाना चाहिए।

अंक योजना-

प्रश्न 9

- (i) प्रस्तुत कथन का वक्ता चन्द्रगुप्त है। वह मगध सम्राट समुद्रगुप्त का छोटा पुत्र है। उसे युवराज घोषित कर दिया जाता है क्योंकि वह मद्र देश के राजा को हराकर उसकी पुत्री ध्रुवस्वामिनी को ले आया है। उसमें अपार वीरता, साहस एवं पराक्रम है। वह अपने पिता की ही तरह देश के लिए चिन्तित रहता है। वह समुद्रगुप्त के समान सम्पूर्ण भारत के छोटे-छोटे राज्य को जीतकर एक करने में लगा हुआ था।
- (ii) चन्द्रगुप्त देवसेना को अपनी असमर्थता बता रहा है कि वह ध्रुवस्वामिनी के पिता को दिये गये वचन का पालन नहीं कर सका। ध्रुवस्वामिनी के पिता को चन्द्रगुप्त के वचन दिया था कि वह अपने अन्तिम साँस तक ध्रुवस्वामिनी के मान-सम्मान, गौरव पद मर्यादा की रक्षा करेगा। मान-सम्मान चन्द्रगुप्त उक्त वचन का पालन और नहीं कर सका इसका कारण यह था कि जब वह अयोध्या में शकों के साथ युद्ध पर गया हुआ था तो सम्राट समुद्रगुप्त की मृत्यु के बाद रामगुप्त ने राजसिंहासन पर अधिकार करने के साथ-साथ ध्रुवस्वामिनी से भी बलपूर्वक विवाह कर लिया। चन्द्रगुप्त को पिता की बीमारी की सूचना तक नहीं दी गयी थी।
- (iii) रामगुप्त सम्राट समुद्रगुप्त का बड़ा पुत्र तथा चन्द्रगुप्त का बड़ा भाई है। संसार उसे कायर इसलिए कहता है क्योंकि उसने राजनीति व धर्म के विरुद्ध राज-सिंहासन पर अधिकार कर लिया था। सम्राट समुद्रगुप्त की मृत्यु के बाद युवराज चन्द्रगुप्त को राज-सिंहासन मिलने वाला था जिसे धोखे से रामगुप्त ने हथिया लिया। उसने बीमारी की सूचना चन्द्रगुप्त को नहीं दी। पिता ने निर्णय के विपरित आचारण करना भी रामगुप्त की कायरता है। सबसे बड़ी कायरता यह है कि उसने उस ध्रुवस्वामिनी से बलपूर्वक विवाह कर लिया जो उसके छोटे भाई की मंगेतर थी। ध्रुवस्वामिनी की इच्छा के विरुद्ध किया जाने वाला यह विवाह रामगुप्त को कायर सिद्ध करता है।
- (iv) विष्णु शर्मा ने जब चन्द्रगुप्त को बताया कि रामगुप्त के सभी कार्य प्रजा व धर्म के विरुद्ध है। मगध की दक्षिणी-पश्चिमी सीमा पर मालवा, गुजरात और सौराष्ट्र के शकों ने आक्रमण करने प्रारम्भ कर दिए हैं। पूर्व में नाम शासकों ने उपद्रव मचा रखा है। दक्षिण में वाकाटक महाराज रुद्रदेव द्वितीय की शक्ति दिनोंदिन बढ़ती जा रही है। चन्द्रगुप्त तब कहता है कि मगध उसका है और वह जीते जी विदेशी शक्तियों को इस पवित्र भूमि पर पैर नहीं रखने दे सकता। उसने संगठन पर बल देने के साथ-साथ यह भी कहा कि वह रामगुप्त व उसके साथियों का क्षण भर में नाश कर सकता है। परंतु वह गृह-युद्ध नहीं चाहता। अतः चन्द्रगुप्त रामगुप्त का विरोध नहीं कर पा रहा था। उपर्युक्त अनुच्छेद से स्पष्ट होता है कि परिस्थितियाँ वीर पुरुष को भी लाचार बना देती हैं।

Question 10

Read the extract given below and answer in Hindi the questions that follow:—

निम्नलिखित गद्यांश को पढ़िए और उसके नीचे लिखे प्रश्नों के उत्तर हिन्दी में लिखिए:—

“आज हमने अपने पिता आर्य समुद्रगुप्त के ऋण को ही नहीं चुका दिया बल्कि जननी जन्मभूमि के उस ऋण को भी चुका दिया है जिसका बोझ जन्म से ही हमारे सिर पर था।”

- (i) उपर्युक्त पंक्तियों का सन्दर्भ स्पष्ट कीजिए। [2]
- (ii) आर्य समुद्रगुप्त कौन थे? उनका संक्षिप्त परिचय दीजिए। [2]
- (iii) समुद्रगुप्त का ऋण किसने, किस प्रकार चुकाया? [3]
- (iv) ‘जन्मभूमि’ का व्यक्ति पर किस प्रकार का ऋण होता है? जन्मभूमि के ऋण को किस प्रकार चुकाया जा सकता है? एक अनुच्छेद में उतर दीजिए। [3]

परीक्षकों की टिप्पणियाँ—

- (i) अधिकांश विद्यार्थियों द्वारा सही उत्तर लिखने का प्रयास किया गया। कुछ विद्यार्थी परिचय तथा चरित्र चित्रण में भ्रमित रहे। कुछ छात्रों के द्वारा लिखे उत्तर में मुख्य बिन्दुओं का अभाव पाया गया।
- (ii) अधिकांश विद्यार्थियों ने इस प्रश्न का उत्तर सही लिखा है। कुछ छात्र इस प्रश्न में ऋण चुकाने की बात पर भ्रमित रहे। कुछ छात्रों ने ऋण किसने चुकाया, सही लिखा। परन्तु किस प्रकार चुकाया कुछ विद्यार्थियों ने गलत लिखा है। कुछ छात्रों को प्रश्न के दूसरे भाग का अर्थ लिखने में कठिनाई हुई और मुख्य बिन्दु कम पाए गए।
- (iii) इस प्रश्न में बहुत से बच्चे ऋण चुकाने की बात पर भ्रमित दिखाई दिए। कुछ विद्यार्थियों ने ऋण किसने चुकाया, सही लिखा। परन्तु किस प्रकार चुकाया गलत लिखा है। कुछ छात्रों के इस प्रश्न में मुख्य बिन्दु कम पाए गए। कुछ छात्रों द्वारा समुचित उत्तर भी दिए गए।
- (iv) सामान्य प्रश्न था इसलिए विद्यार्थियों ने सामान्य उत्तर अपने विवके से दिए। कुछ विद्यार्थियों ने ऋण शब्द का स्पष्टीकरण नहीं किया। अधिकांश विद्यार्थियों ने इस प्रश्न का समुचित उत्तर दिया। कुछ छात्रों को इस प्रश्न को समझने में कठिनाई हुई जिसके कारण मुख्य बिन्दु अपेक्षाकृत कम पाए गए। इस प्रश्न को अधिक बच्चे भली भाँति समझ पाए लेकिन उपन्यास से उदाहरण कुछ ही बच्चों ने दिया।

अध्यापकों के लिए सुझाव—

- उपन्यास पढ़ते समय उसमें आए कठिन शब्दों की विशद् व्याख्या करनी चाहिए। उसके भाव इतने स्पष्ट हों कि उत्तर लिखते समय छात्रों को कठिनाई न हो।
- उपन्यास के सभी तथ्यों की पूर्ण जानकारी आवश्यक है और उन तथ्यों के आधार पर अभ्यास भी कराया जाना चाहिए।
- उपन्यास के किसी विशेष-विशेष अंक का मंचन कराने से भी तथ्यों को समझना तथा याद रखना सरल होता है। ऐसे प्रयास भी किए जा सकते हैं।
- उपन्यास से सभी पात्र का परिचय विस्तृत रूप से दिए जाएँ और उनसे जुड़े अन्य तथ्य भी बनाये जाने चाहिए।
- प्रश्न के सभी भागों के उत्तर पृथक-पृथक लिखने का अभ्यास कराया जाना चाहिए। मुख्य बिन्दु याद करवाने चाहिए तथा प्रश्न के उत्तर का मौखिक एवं लिखित दोनों अभ्यास करवाना चाहिए।
- निरन्तर अभ्यास के द्वारा वर्तनी सम्बन्धी अशुद्धियों को सुधारने का प्रयास किया जाना चाहिए।
- छात्रों को यह स्पष्ट रूप से बताना चाहिए कि प्रश्न का उत्तर लिखने के प्रश्नात एक बार सरसरी नजर से देख लें कि कहीं कुछ छूट न गया हो।
- उपन्यास का बार-बार ध्यान से पढ़ने के लिए प्रेरित किया जाना चाहिए।

अंक योजना-

प्रश्न 10

- (i) उपर्युक्त पंक्तियों का सम्बन्ध उस समय का है, जब इन्द्रप्रस्त के खंडहरों के निकट पर ऊँची पहाड़ी पर चन्द्रगुप्त विक्रमादित्य की विजय सेना का पडाव पडा हुआ था। चन्द्रगुप्त ने वाहिलकों पर विजय पायी थी तथा महान विजय के समारोह पर वाकाटक महाराज रूद्रसेन ने भी आने का निमन्त्रण स्वीकार किया था। सम्राट ने राजकुमारी प्रभावती और रूद्रसेन का विवाह करने का भी निश्चय किया था।
- (ii) आर्य समुद्रगुप्त चन्द्रगुप्त विक्रमादित्य एवं रामगुप्त के पिता थे। वे गुप्त-वंश के प्रतापी सम्राट। वे अत्यन्त शौर्यवान, साहसी, दूरदर्शी ही नहीं थे अपितु कला एवं साहित्य के प्रेमी भी थे। वे अपनी प्रजा से पुत्रवत् स्नेह रखते थे। उन्होंने अपने शासनकाल में अनेक देवालयों, विश्वविद्यालयों, मठों एवं धार्मिक स्थलों की स्थापना की।
- (iii) समुद्रगुप्त का ऋण उनके कनिष्ठ पुत्र चन्द्रगुप्त ने चुकाया। समुद्रगुप्त अपने जीवनकाल में मालवा, गुजरात और सौराष्ट्र पर विजय नहीं पा सके थे। उन्होंने अखण्ड भारत पर स्वप्न देखा था कि वह पूर्ण नहीं हो पाया था। चन्द्रगुप्त ने सौराष्ट्र, मालवा एवं गुजरात पर विजय प्राप्त कर इस स्वप्न को पूरा करके यह ऋण चुकाया। उन्होंने वाहिलक सेना पर विजय पायी तथा महाराज रूद्रसेन को निर्मंत्रित करके राजकुमारी प्रभावती से उनका विवाह करवाकर दोनों राज्यों की पुरानी शत्रुता को समाप्त किया।
- (iv) यद्यपि जननी हमें जन्म देती है, परन्तु हम अपनी जन्मभूमि का अन्न, जल खा पीकर बड़े होते हैं। हमारे पालन-पोषण में जन्मभूमि का महत्वपूर्ण योगदान है। वही हमें सहारा देती है। हम उसकी गोद में खेलते-कूदते हैं। अतः हमारा कर्तव्य है कि हम अपनी जन्मभूमि का ऋण चुकाने के लिए उसकी उन्नति एवं समृद्धि के लिए प्रयत्नवान रहें तथा जब कभी उस पर संकट आये, तो अपने प्राण भी उस पर न्यौछावर कर दें।

एकांकी सुमन

Question 11

Read the extract given below and answer in Hindi the questions that follow:—

निम्नलिखित गद्यांश को पढ़िए और उसके नीचे लिखे प्रश्नों के उत्तर हिन्दी में लिखिए:-

“सरकार को गाली ही दी जाती है। गोली चली तो गाली देते हैं। बैंक लुट जाता है तब भी गाली ही देते हैं।”

- सीमा रेखा -

लेखक- विष्णु प्रभाकर

- (i) प्रस्तुत कथन का वक्ता कौन है? उसने ये वाक्य किससे और कब कहा? [2]
- (ii) सरकार को गाली ही दी जाती है - कथन के आधार पर सरकार पर प्रकाश डालिए। [2]

(iii) श्रोता कौन है? श्रोता का चरित्र-चरित्रण कीजिए।

[3]

(iv) 'जनतंत्र में सरकार और एक-दूसरे के पूरक होते हैं।' एकांकी के आधार पर इस कथन के पक्ष में अपने विचार एक अनुच्छेद में लिखिए।

[3]

परीक्षकों की टिप्पणियाँ-

- (i) अधिकांश छात्रों ने इस प्रश्न का समुचित उत्तर दिया। प्रश्न के प्रथम भाग में कुछ विद्यार्थियों ने गलत लिखा था तथा 'कब कहा' यह भी उत्तर सही नहीं लिखा। कुछ विद्यार्थी वक्ता तथा श्रोता से भ्रमित रहे।
- (ii) 'सरकार को गाली ही दी जाती है' बहुत से बच्चों ने यह बात स्पष्ट नहीं की केवल सरकार की मुश्किलें ही लिख दी। वर्णनात्मक उत्तर था। सामान्य ज्ञान से ही उत्तर दिया जा सकता था। परन्तु अपेक्षित उत्तर नहीं दे पाए। कुछ छात्रों ने इस प्रश्न को स्पष्ट उत्तर भी दिया है।
- (iii) बहुत से विद्यार्थियों ने छोटी-छोटी गलतियाँ की जैसे श्रोता को ही नहीं समझ पाए तथा गलत श्रोता लिख कर उसी का चरित्र-चित्रण कर दिया। कुछ छात्र श्रोता गलत लिख दिया। इसी आधार पर परिचय भी गलत लिखा। अन्नापूर्ण के स्थान पर सविता लिखा। परिचय भी सविता का लिखा।
- (iv) कुछ छात्रों ने केवल कथन को स्पष्ट किया तथा कुछ बच्चे केवल एकांकी के आधार पर लिख पाए। कुछ छात्रों ने प्रश्न का सामान्य उत्तर लिखा जबकि प्रश्न का उत्तर एकांकी के आधार पर लिखना था। कुछ छात्रों को प्रश्न समझने में कठिनाई हुई। मुख्य बिन्दु अपेक्षकृत कम पाए गए।

अध्यापकों के लिए सुझाव-

- एकांकी अत्यन्त सरल है। कक्षा में उसका मंचन करवाकर मुख्य घटनाओं को स्पष्ट किया जाना चाहिए। इसे एक रोचक गतिविधि के अंतर्गत किया जा सकता है।
- सन्दर्भ एवं प्रसंग संबंधी प्रश्नों का बार-बार अभ्यास करवाया जाए। इन शब्दों को लक्ष्य बनाकर विशेष व्याख्या की जानी चाहिए।
- उत्तर को अपेक्षित विस्तार देते हुए छात्रों से लिखित प्रश्न का अभ्यास करवाना चाहिए।
- एकांकी का उद्देश्य, शीर्षक की सार्थकता तथा केन्द्रीय भाव की अलग-अलग व्याख्या हो तथा उसका लिखित अभ्यास करवाया जाना चाहिए।
- पाठ के प्रत्येक पहलू को स्पष्ट तौर पर समझाया जाना चाहिए।
- मुहावरे एवं लोकोक्तियों के अर्थ भी बताये जाएँ तथा समयानुसार उचित प्रयोग का अभ्यास भी करवाया जाए।
- एकांकी के घटनाक्रम को स्पष्ट करते हुए तर्क सहित उत्तर लिखने का अभ्यास करवाना आवश्यक है।
- मानवीय संवेदनाएँ तथा अनुभूतियाँ जीवन में कितना महत्व रखती हैं, एकांकी के सम्बन्धों के आधार पर स्पष्ट किया जाना चाहिए।
- विद्यार्थियों को यह अभ्यास कराया जाना चाहिए कि उत्तर लिखने के बाद एक बार जाँच लें कि प्रश्न के सभी भागों का उत्तर स्पष्ट लिखा है या नहीं।

अंक योजना-

प्रश्न 11

- (i) प्रस्तुत कथन का वक्ता शरतचन्द्र है। वह उपमंत्री है। नेता होने के नाते उनमें अपने तथा अपने शासन के प्रति पूर्ण विश्वास है। शरतचन्द्र ने ये वाक्य अपनी पत्नी अन्नपूर्णा से उस समय कहा था जब अन्नपूर्णा ने उसे बताया कि वह जब जीजी (जेठानी) के पास गई थी, रास्ते में सुना था कि रामगंज में गोली चल गई। बाजार बंद हो रहे हैं। चारों ओर लोगों में भय छाया हुआ है और सरकार को गालियाँ दे रहे हैं।
- (ii) आजकल हर जगह दंगा फसाद हो रहे हैं उनके कई कारणों में मुख्य कारण आन्दोलन करने की स्वतन्त्रता है। यह आन्दोलन की प्रवृत्ति इतनी बढ़ती जा रही है कि प्रायः छोटी-छोटी समस्याओं के लिए उग्र आन्दोलन किये जाने लगे हैं। इन आन्दोलनों की सुरक्षा व देखभाल की जिम्मेदारी पुलिस और प्रशासन की होती है। इन आन्दोलनों के उग्र रूप धारण करने पर खून खराबा, मारपीट तथा आगजनी बढ़ने लगती है। इन समस्याओं पर नियन्त्रण पाने के लिए सरकार द्वारा जो आदेश दिया जाता है सरकार को उसके लिए अपमानजनक बातों को ही सुनना पड़ता है।
- (iii) श्रोता शरतचन्द्र की पत्नी अरविन्द की माँ अन्नपूर्णा है। वह परिवार की दूसरे नम्बर की बहू है। अन्नपूर्णा का स्वभाव बहुत सरल और सीधा है। अपने पुत्र की मृत्यु पर वे पुलिस को जघन्य अपराधी मानती है। अपने पुत्र तथा दोनों देवर विजय और सुभाष की मृत्यु के बारे में उनका कहना है कि यह उनके घर की क्षति हुई है। अन्नपूर्णा एक कोमल और भावुक स्वभाव की स्त्री है।
- (iv) प्रस्तुत एकांकी में सरकार तथा जनता दोनों को अपने-अपने दायित्वों का बोध कराना बताया गया है। जनतन्त्र में सरकार और प्रजा एक दूसरे के पूरक होते हैं। जनतन्त्र में जनता और सरकार के बीच कोई विभाजक-रेखा नहीं होती। राष्ट्र में प्रत्येक नागरिक के सोचने की एक सीमा रेखा सुनिश्चित होनी चाहिए। सरकार और जनता के बीच का सन्तुलन तब बिगड़ता है जब दोनों प्रक्ष अपने-अपने मूल कर्तव्यों को भूलकर केवल अपने-अपने अधिकारों के प्रति जागरूक रहते हैं। अपने-अपने स्वार्थ के विषय में चिंतन करने से अव्यवस्था फैलने लगती है। इसलिए कर्तव्य का पालन करते हुए यदि मरना भी पड़े तो समाज के प्रत्येक नागरिक को ऐसा करने से पीछे नहीं हटना चाहिए। हमें अधिकारों के साथ-साथ कर्तव्यों को भी निभाना चाहिए।

Question 12

Read the extract given below and answer in Hindi the questions that follow:—

निम्नलिखित गद्यांश को पढ़िए और उसके नीचे लिखे प्रश्नों के उत्तर हिन्दी में लिखिए:-

“नहीं मातुश्री, वे आपको कभी नहीं भूल सके, वे तो आपको सदैव स्मरण करते हैं। वे सब तरह से कुशल हैं, यदि उन्हें दुःख है तो केवल आपका ही दुःख है। वीर लक्ष्मण भी सकुशल हैं। आप किसी तरह की चिंता न करें। आपके प्रति प्रभु राम के हृदय में जो प्रेम है, उसकी थाह नहीं ली जा सकती।”

— राजरानी सीता—

लेखक- डॉ. रामकुमार वर्मा

- (i) 'मातुश्री' शब्द का प्रयोग किसके लिए किया गया है? हनुमान का संक्षिप्त परिचय दीजिए। [2]
- (ii) 'वे' शब्द का सम्बोधन किसके लिए किया गया है? उनके सम्बंध में श्रोता ने वक्ता से क्या-क्या कहा? संक्षेप में लिखिए। [2]
- (iii) इस समय श्रोता के हृदय में क्या संदेह था? वक्ता ने श्रोता के संदेह को कैसे दूर किया? [3]
- (iv) श्रोता की मनोदशा का वर्णन कीजिए और बतलाइए कि वक्ता के किन वचनों से श्रोता के मनोभावों में, क्या अन्तर आया। [3]

परीक्षकों की टिप्पणियाँ-

- (i) अधिकांश छात्र इस प्रश्न का उत्तर देने में समक्ष थे। इस प्रश्न का उत्तर प्रायः सभी विद्यार्थियों ने सही लिखा है। प्रश्न साधारण था सभी बच्चों का प्रयास सफल रहा बस कुछ बच्चे हनुमान के परिचय में भ्रमित दिखाई दिए।
- (ii) 'वे' शब्द से छात्र पूर्णतया परिचित थे लेकिन सीता ने क्या कहा उस बात का भली प्रकार स्पष्ट नहीं कर पाए। कुछ विद्यार्थियों ने प्रश्न के प्रथम भाग का उत्तर सही लिखा परन्तु द्वितीय भाग में श्रोता के कथन के स्थान पर हनुमान जी था। कुछ छात्रों ने इस प्रश्न का उत्तर स्पष्ट भी लिखा है। इस प्रश्न का उत्तर अधिकांश छात्रों ने सही लिखा है।
- (iii) श्रोता के हृदय के संदेह को स्पष्ट करने में कुछ विद्यार्थी भ्रमित दिखाई दिए तथा संदेह कैसे दूर किया इस विषय में भी भ्रमित रहे। कुछ छात्रों ने प्रसंग के आधार पर नहीं बल्कि पाठ के आधार पर उत्तर लिख दिया जैसे उन्हें लगा कि वह रावण के द्वारा भेजा गया मायावी दानव न हो।
- (iv) श्रोता की मनोदशा को बच्चे भली भाँति लिख पाए पर किन वचनों से मनोभावों में अंतर आया यह बात स्पष्ट नहीं कर पाए। कुछ छात्रों ने प्रश्न के प्रथम भाग का उत्तर सही दिया। द्वितीय भाग को अवतरण में से ही लिख दिया और तृतीय भाग क्या अंतर आया का उत्तर देना भूल गए। कुछ छात्रों ने इस प्रश्न का स्पष्ट उत्तर लिखा है।

अध्यापकों के लिए सुझाव-

- कक्षा में 'संदर्भ' शब्द का अभिप्राय अवश्य समझाएँ ताकि छात्र शब्द को समझें और इसका उत्तर भली-भाँति लिख सकें।
- विद्यार्थियों को ध्यानपूर्वक एकांकी पढ़ने के लिए प्रेरित किया जाये।
- परिचय तथा चारित्रिक विशेषताओं में अन्तर समझाया जाए।
- मुख्य बिन्दुओं को रेखांकित कराकर उनका अर्थ स्पष्ट करें एवं अभ्यास हेतु छात्रों को प्रश्न दिए जायें।
- विद्यालय के मंच पर ही एकांकी का मंचन करवाया जाए इससे छात्रों में एकांकी के प्रति रुचि उत्पन्न होगी।
- एकांकी पढ़ाते समय उसमें वर्णित महत्वपूर्ण स्थल जैसे नाम, स्थान, समय आदि को रेखांकित करवाया जाए जिससे वे आसानी से याद हो सकें।
- सभी प्रकार के प्रश्नोत्तरों का अभ्यास लिखित रूप से करवाया जाए तथा वर्तनी सम्बन्धी अशुद्धियों में संशोधन कार्य करने के लिए प्रेरित किया जाए।
- विवेचनात्मक तथा समीक्षात्मक प्रश्नों का अभ्यास अधिक से अधिक करवाया जाए।

अंक योजना-

प्रश्न 12

- (i) 'मातुश्री' शब्द का प्रयोग हनुमान द्वारा सीता जी के लिए किया गया है। हनुमान जी रामभक्त हैं। वे पवन पुत्र व अंजना कुमार के नाम से भी जाने-जाते हैं। वे केसरी तथा अंजना के पुत्र थे और प्रभु राम की भक्ति में डूबे रहते थे। वे किष्किंधा के राजा सुग्रीव के मंत्री थे। माता सीता की खोज तथा उनकी सम्मान पूर्वक वापसी में हनुमान जी की महत्वपूर्ण भूमिका रहती है। जब सीता जी की खोज करते-करते राम-लक्ष्मण ऋष्यमूक पर्वत पर पहुंचते हैं तो हनुमान ही सुग्रीव की श्रीराम से मित्रता कराते हैं। अशोक वाटिका में पहुंच पाना भी हनुमान की वीरता, सूझ-बूझ और दिव्य शक्ति का प्रतीक है। वे अपनी मधुर और विश्वसनीय वाणी द्वारा माता सीता को अपने राम

भक्त व रामदूत होने का प्रमाण देते हैं।

- (ii) 'वे' शब्द का सम्बोधन श्रीराम के लिए किया गया है। हनुमान जी श्रीराम के परमभक्त होने के कारण सीता जी के भी भक्त हैं। वे सीता जी से पहली बार मिलते हैं और उन्हें माता कहकर सम्बोधित करते हैं। राम का एक पत्नीव्रत रूप दिखाने के लिए हनुमान सीता से कहते हैं कि राम एक क्षण भी उन्हें नहीं भूल सके। वे तो प्रत्येक क्षण उन्हें ही स्मरण करते हैं। वे सीता जी को राम के कुशल होने का विश्वास भी दिलाते हैं। वे यह भी बताते हैं कि राम को केवल सीता के वियोग का दुःख है। इस के साथ ही वह लक्ष्मण के कुशल होने का संकेत भी देते हैं।
- (iii) इस समय श्रोता (सीता) के हृदय में यह संदेह था कि हनुमान को कहीं रावण ने तो नहीं भेजा। मनुष्य (श्रीराम) और वानर (हनुमान) का साथ कैसे हो सकता है। वक्ता ने श्रोता के संदेह को दूर करने के लिए सीता हरण की कथा सुनाकर उनके द्वारा फेंके गए आभूषणों-वस्त्रों, वानरराज सुग्रीव द्वारा उन्हें उठाने, श्रीराम द्वारा उन्हें पहचानने तथा सुग्रीव से हुई उनकी मित्रता की सारी पृष्ठ भूमि बताते हैं। सुग्रीव ने सीता की खोज में अनेक वानर भेजे हैं और वह स्वयं भी उन्हीं द्वारा भेजा गया रामदूत हनुमान है। तब जाकर श्रोता(सीता जी) को हनुमान को विश्वास होता है।
- (iv) हनुमान तब सीता जी को यह बताते हैं कि प्रभु राम को केवल उन्हीं का दुःख है और उनके हृदय में सीता जी के लिए जो प्रेम है उसकी थाह नहीं ली जा सकती। तो वे भावुक होकर स्वयं को अभागिन कहती हैं। उन्हें स्मरण आता है कि प्रभु राम को इस दुःख में डालने के लिए वे स्वयं जिम्मेदार हैं। यदि वे उस कपट-मृग के लिए हठ न करती और श्रीराम के समझाने पर अपना हठ त्याग देती तो आज उनकी यह दशा न होती। उनकी मनोदशा प्रश्चाताप में डूबी स्त्री की दशा है। वे सोचती हैं कि उन्होंने अपने साथ-साथ श्रीराम तथा लक्ष्मण को भी घोर विपत्ति में लाकर खड़ कर दिया है। उनके मन में इस बात की भी ग्लानि है कि उन्होंने रामभक्त तथा पुत्र के समान लक्ष्मण द्वारा बनायी गयी रेखा का भी सम्मान नहीं दिया।

Question 13

Read the extract given below and answer in Hindi the questions that follow:—

निम्नलिखित गद्यांश को पढ़िए और उसके नीचे लिखे प्रश्नों के उत्तर हिन्दी में लिखिए:-

“आज का जमाना ऐसा नहीं रहा। अगर हम बच्चों के साथ बहुत सख्ती करेंगे, तो बच्चे, आज नहीं तो कल, हमारा सामान जरूर करने लगेंगे। हमें ही झुकना होगा। क्या फायदा बहस से?”

—भटकन—

लेखक- शैल रस्तोगी

- (i) प्रस्तुत कथन का वक्ता कौन है? उसका परिचय दीजिए। [2]
- (ii) वक्ता किसे समझा रहा है और क्यों? [2]
- (iii) श्रोता पर वक्ता के कथन का क्या प्रभाव पड़ता है? वह क्या उत्तर देती है? [3]
- (iv) बच्चों और माता-पिता के बीच कब और क्यों दूरी पैदा हो जाती है? इस दूरी का क्या परिणाम होता है? [3]

परीक्षकों की टिप्पणियाँ-

- (i) वक्ता से सभी छात्र पूर्णतया परिचित थे तथा उनका परिचय भी स्पष्ट कर पाए लेकिन चरित्र के गुणों के लेखन में भ्रमित दिखाई दिए। अधिकांश छात्रों ने प्रश्नों के उत्तर सही लिखे पर कुछ ने कला का नाम लिख दिया जो कि गलत था।
- (ii) श्रोता से सभी छात्र परिचित थे केवल कुछ विद्यार्थी प्रश्न के क्यों भाग का उत्तर अधिक स्पष्ट नहीं कर पाए। प्रश्न के प्रथम भाग का उत्तर सही लिखा। द्वितीय भाग में विभिन्न उत्तर मिले। कुछ प्रासंगिक थे कुछ प्रत्यक्ष रूप से प्रासंगिक नहीं थे परन्तु सही थे।
- (iii) श्रोता वक्ता की बातचीत का प्रभाव कुछ बच्चे स्पष्ट नहीं कर पाए। केवल उसके द्वारा दिया गया उत्तर ही लिखते रहे। प्रश्न द्वितीय भाग का उत्तर कुछ विद्यार्थियों ने सही नहीं लिखा। कुछ विद्यार्थियों द्वारा इस प्रश्न का उत्तर स्पष्ट तथा उचित था।
- (iv) इस प्रश्न को कुछ बच्चों ने भली प्रकार लिखा लेकिन कुछ बच्चों ने तीनों भाग स्पष्ट नहीं कर पाए। इस प्रश्न के उत्तर में कुछ बच्चों ने अपने-अपने मन के उदगार लिखे जो सही थे। कुछ छात्रों द्वारा इस प्रश्न का समुचित उत्तर दिया गया।

अध्यापकों के लिए सुझाव-

- एकांकी को ध्यानपूर्वक पढ़ने के लिए प्रेरित किया जाये तथा सम्बन्धित प्रश्नावली तैयार करके उसका लिखित अभ्यास करवाया जाये।
- एकांकी के पात्रों का अभिनय करवाकर कक्षा में रूचि जगाई जा सकती है तथा दृश्य और भाव याद करने में भी सरलता होगी।
- एकांकी में वर्णित पात्रों की मनःस्थिति को स्पष्ट रूप से समझाया जाना चाहिए।
- एकांकी के पात्रों का चरित्र-चित्रण करवाना तथा उनसे जुड़े संदर्भ भी बताना चाहिए जिससे छात्रों को चारित्रिक विशेषताएँ बताने में कठिनाई न हो।
- चरित्र-चित्रण सम्बन्धी मुख्य बिन्दुओं को या प्रतीकात्मक संकेत की ओर विशेष ध्यान दिलाना चाहिए।
- उत्तर लिखते समय पात्रों का नाम लिखना भी महत्वपूर्ण है। इस ओर विशेष ध्यान दिलाना चाहिए।
- मुहावरों तथा लोकोक्तियों को रेखांकित करवाकर उनका अर्थ बताना आवश्यक है ताकि उत्तर लिखते समय छात्र भ्रमित न हों।
- व्याख्या तथा तर्क देने वाले प्रश्नों का कक्षा में ही अभ्यास करवाया जाना चाहिए।
- कक्षा में लेखन कार्य का बारम्बार अभ्यास करवाना एवं वर्तनी सुधार पर बल देना चाहिए।

अंक योजना-

प्रश्न 13

- (i) प्रस्तुत कथन का वक्ता दिवाकर है। वे प्रस्तुत एकांकी में चर्चित परिवार के मुखिया है। नीरू उनकी पुत्री तथा मनुज उनका पुत्र है। उनकी पत्नी कला एक कॉलेज में पढ़ने जाती है। दिवाकर अत्यंत

सुलझे हुए व्यक्ति है। वे आज की नई पीढ़ी के बच्चों को प्यार व अपनत्व से निर्दिष्ट करने के पक्षपाती हैं। उनके विचार हैं कि डॉट-फटकार द्वारा बच्चों का मार्गदर्शन नहीं हो सकता है। इसके विपरित वे लाताड़ खाकर और भी भटक जाते हैं।

- (ii) यहाँ वक्ता दिवाकर अपनी पत्नी कला को समझा रहा है। समझाने का कारण नई पीढ़ी के बच्चों की भटकन है। जब उन्हें कला यह बताती है कि उनका बेटा मनुज रोज साइकिल उठाकर बिना बताए इधर-उधर निकल जाता है तो वे अपनी पत्नी कला को समझाते हैं कि बच्चों के साथ सख्ती की बजाय प्रेम का व्यवहार करना चाहिए। बच्चों की अपनी अपेक्षाएँ होती हैं। यदि उनकी आवश्यकता और पक्ष को जाने बिना उन्हें डाँटा जाएगा तो उनका स्वभाव विद्रोही हो जाएगा।
- (iii) दिवाकर के सुझाव एक उनकी पत्नी कला अपनी बेटी नीरू की शिकायत करने लगती है कि एकदम मुँह बंद करके भी तो नहीं बैठा जा सकता। यदि बच्चे कोई गलती कर रहे हों या भटक रहे हों तो उन्हें डाँटना भी पड़ता है। यदि उन्हें सही मार्ग पर लाने के लिए थोड़ी सख्ती भी की जाती है तो इसमें कोई बुराई नहीं। वे कहती हैं कि नीरू के कॉलेज में सांस्कृतिक कार्यक्रम चलते रहते हैं और वह उन्हीं में व्यस्त रहती है। पढ़ाई के नाम पर कुछ दिखाई देता।
- (iv) प्रस्तुत एकांकी में बच्चों की 'भटकन' की प्रवृत्ति उसके कारणों तथा समाधान पर विचार हुआ है। नई पीढ़ी पर प्रायः आवारा, दिशाहीन तथा पथभ्रष्ट होने के आरोप लगाये जाते हैं परन्तु इसके मूल कारण जानने का कोई भी प्रयास नहीं करता-आर्थिक समस्याओं से जूझते मात-पिता दोनों ही अपने-अपने काम में व्यस्त रहते हैं तो बच्चों को अकेलापन महसूस होने लगता है। उनका विकास मनमाने ढंग से होने लगता है। वे प्रेम व अपनत्व की खोज में बाहर भटकने लगते हैं। उनकी अपने माता-पिता से दूरियाँ निरन्तर बढ़ती जाती हैं। इस दूरी का यह परिणाम होता है कि बच्चों घर में अकेलापन महसूस करते हैं और इस अकेलेपन के कारण वह घर से बाहर इधर-उधर भटकते रहते हैं। इस प्रकार वह घर में होते हुए भी स्वयं को घर से बाहर महसूस करने लगते हैं।

काव्य चन्द्रिका

Question 14

Read the extract given below and answer in Hindi the questions that follow-

निम्नलिखित पद्यांश को पढ़िए और उसके नीचे लिखे पश्नों के उत्तर हिन्दी में लिखिए:-

लघु सुरधनु-से पंख पसारे-शीतल मलय-समीर सहारे,
उड़ते खग जिस ओर मुँह किये-समझ नीड़ निज प्यारा।
बरसाती आँखों के बादल-बनते जहाँ भरे करुणा जल,
लहरें टकराती अनन्त की-पाकर जहाँ किनारा।
अरुण, यह मधुमय देश हमारा।

-अरुण, यह मधुमय देश हमारा-

कवि-जयशंकर प्रसाद

- (i) 'शीतल मलय-समीर' के सहारे कौन और क्यों भारत आते हैं? [2]
- (ii) कवि ने बादलों के विषय में क्या बताया है तथा उनकी तुलना किससे की है? समझाकर लिखिए। [2]

- (iii) 'नीड़ और किनारा' शब्दों का प्रयोग किस सन्दर्भ में हुआ है? यहां कवि किसके विषय में, क्या सिद्ध करना चाहता है? [3]
- (iv) प्रस्तुत गीत कहाँ से लिया गया है तथा इस गीत का मूलभाव क्या है? [3]

परीक्षकों की टिप्पणियाँ-

- (i) अधिकांश छात्रों द्वारा इस प्रश्न का स्पष्ट रूप से उत्तर दिया गया। प्रश्न के दोनों भाग स्पष्ट थे बस कुछ छात्र प्रश्नी भारत क्यों आते हैं? इसका उत्तर लिखने में भ्रमित दिखाई दिए।
- (ii) अधिकांश विद्यार्थी बादलों की तुलना आँखों से कर पाने में भ्रमित दिखाई दिए। बादलों की तुलना में अधिकतर विद्यार्थी भ्रमित रहे। कुछ छात्रों द्वारा लिखा गया यह उत्तर स्पष्ट तथा समुचित रहा है।
- (iii) 'नीड़' तथा 'किनारा' शब्दों का अर्थ अलग से स्पष्ट का पाने में अधिकतर विद्यार्थी असमर्थ रहे तथा प्रश्न के द्वितीय भाग के भाव को स्पष्ट कर सके। कुछ छात्रों द्वारा 'नीड़' और 'किनारा' शब्दों का प्रयोग किस सन्दर्भ में हुआ है इसका उत्तर लिखने की जगह 'नीड़' और 'किनारा' का शब्दिक अर्थ लिख दिया। किसके विषय में तो सही लिखा 'क्या सिद्ध करना चाहता है' सही नहीं लिखा।
- (iv) गीत कहाँ से लिया गया इस विषय में भ्रमित दिखाई दिए लेकिन मूलभाव को स्पष्ट कर पाए। कुछ विद्यार्थियों ने 'काव्य-चन्द्रिका' लिख दिया। जबकि 'चन्द्रगुप्त' नाटक लिखना चाहिए था। कुछ ने केवल चन्द्रगुप्त लिखा। मूलभाव सही लिखा। कुछ छात्रों द्वारा इस प्रश्न का समुचित उत्तर लिखा गया।

अध्यापकों के लिए सुझाव-

- कविता में छिपे भाव का ज्ञान स्पष्ट रूप से करवाना चाहिए। अर्थ बताते समय बीच-बीच में छात्रों से प्रश्न पूछकर उनकी भागीदारी भी लेनी चाहिए।
- कविता के भाव स्पष्ट करने के बाद छात्रों से कविता का भावार्थ लिखवाना चाहिए जिससे उनकी समझ को परखा जा सके।
- कविता से मिलने वाली प्रेरणा तथा शिक्षा की भी स्पष्ट व्याख्या कक्षा में करनी चाहिए। इसे अनुच्छेद में लिखवाना भी चाहिए।
- कविता में यदि तुलनात्मक दृष्टिकोण है तो समानता और अन्तर को स्पष्ट करना चाहिए।
- विस्तार से उत्तर लिखाना सिखाकर उनके अभिव्यक्ति कौशल का विकास करें।
- अपने शब्दों में उत्तर लिखना तथा अपने भावों को व्यक्त करना इसका निरन्तर अभ्यास कक्षा में करवाना चाहिए।
- भाषा का उचित ज्ञान देते हुए व्याकरण का भी अभ्यास अवश्य कराना चाहिए।
- कविता लेखन का उद्देश्य स्पष्ट करें व विचारात्मक प्रश्नों के उत्तर का भी अभ्यास कराएँ। यदि कविता में जीवन दर्शन है तो उसका तात्पर्य भी स्पष्ट करें।
- कवि का साहित्यिक परिचय एवं उनकी विशेषताएँ छात्रों को अवश्य बताया जाए।

अंक योजना-

प्रश्न 14

- (i) भारत विभिन्न प्रकार के पक्षियों का आश्रय-स्थल है। दूसरे देशों के पक्षी भी अपने इन्द्रधनुषी पंखों को फैलाये इस देश की तरफ मुँह मोड़ते हैं और शीतल मलय-समीर के साथ भारत आ जाते हैं। भारत की यह विशेषता है कि वह सभी को शरण देता है। जब बर्फीले प्रदेशों में ठंड बढ़ जाती है तो वहाँ के पक्षी स्थानान्तरण करके भारत पहुँचते हैं। भारत न केवल उन्हें शरण देता है बल्कि यह उनका घर भी बन जाता है।
- (ii) कवि ने बादलों के विषय में बताया है कि भारत वर्षा में आकाश में उमड़ते-धुमड़त हुए तथा जल से परिपूरित बादल ऐसे प्रतित होते हैं जैसे करुणा के जल से भरे हुए विशाल नेत्र है। ऐसे नेत्र जिनमें सदा सबके लिए करुणा, दया, प्रेम जैसे भावों का जल है। बादलों की तुलना करुणा के जल से की गयी है। बादल गर्मी से तप्त मनुष्यों पर अपनी करुणा की वर्षा करते हैं।
- (iii) 'नीड़' शब्द से तात्पर्य पक्षी का घोंसला तथा 'किनारा' शब्द का अर्थ तट है। यहाँ इन दोनों शब्दों का प्रयोग अपने-अपने आश्रय-स्थल के सन्दर्भ में हुआ है। जैसे पक्षी सारे दिन उड़कर अपनी थकान उतारने के लिए अपने घोंसले में आश्रय लेता है। उसी प्रकार उफनती और मचलती समुद्र की लहरें किनारे पर आकार शांति प्राप्त करती है। पक्षियों का नीड़ तथा लहरों का किनारा कवि ने भारतवर्ष को बताया है। दूसरे देशों के पक्षी अपने सतरंगी पंखों के साथ भारत की ओर मुँख किए आते हैं। भारत उनको शरण देकर एक प्रकार से उनका नीड़ अर्थात् घर बन जाता है। उसी प्रकार समुद्र की लहरें भी भारत के तटों से टकराकर शांति को प्राप्त करती हैं क्योंकि उन्हें वहाँ किनारा मिल जाता है।
- (iv) प्रस्तुत गीत जयशंकर प्रसाद के प्रसिद्ध नाटक चन्द्रगुप्त का एक गीत है जो सेल्यूक्स की पुत्री कार्नेलिया गाती है। कवि कहता है कि हमारा देश भारत सुन्दर और मधुरता से पूर्ण है। इतना महान है कि यहाँ अनजान लोगों को भी सहारा मिलता है। भारत में जो भी आता है भारत उसे अपना लेता है। पक्षी भी अपना बसेरा ढूँढने भारत आते हैं। भारत में वर्षा भी पर्याप्त मात्रा में होती है। बादल करुणा का संदेश देते हैं। समुद्र की लहरें भारत के किनारों से टकराती हैं। भारत में सूर्योदय का दृश्य बड़ा सुहावना होता है। उषा का मानवीकरण करते हुए कवि ने कहा कि उषारूपी सुन्दरी सोने का कलश लेकर सारे भारत पर सुख की वर्षा करती है। प्राकृतिक सौन्दर्य के वर्णन के साथ-साथ कवि ने भारत की महानता का भी वर्णन किया है।

Question 15

Read the extract given below and answer in Hindi the questions that follow:—

निम्नलिखित पद्यांश को पढ़िए और उसके नीचे लिखे पश्नों के उत्तर हिन्दी में लिखिए:-

वर्षा के प्रिय स्वर उर के बुनते सम्मोहन,
प्रणयातुर शत कीट-विहग करते सुख-गायन।
मेघों का कोमल तम श्यामल तरुओं से छन।
मन में भू की अलस लालसा भरता गोपन।
रिमझिम-रिमझिम क्या कुछ कहते बूँदों के स्वर,
रोम सिहर उठते, छूते वे भीतर अंतर।

धाराओं पर धाराएँ झरतीं धरती पर,
रज के कण-कण में तृण-तृण की पुलकावलि भर।

-सावन-

कवि-सुमित्रानन्दन पंत

- (i) वर्षा के स्वर मन में क्या प्रतिक्रिया उत्पन्न करते हैं? [2]
- (ii) 'मेंघों का कोमल तम श्यामल तरुओं से छन
मन में भू की अलस लालास भरता गोपन।'- पंक्तियों का भावार्थ लिखिए। [2]
- (iii) बूँदों के स्वरों से रोम क्यों सिहर उठते हैं? समझकर लिखिए। [3]
- (iv) मनुष्य के लिए सावन की क्या उपयोगिता है? [3]

परीक्षकों की टिप्पणियाँ-

- (i) अधिकांश छात्रों द्वारा इस प्रश्न का स्पष्ट रूप से उत्तर दिय गया। वर्षा के स्वर तथा उसकी प्रतिक्रिया अधिकांश बच्चे स्पष्ट कर पाए बस कुछ बच्चे प्रतिक्रिया में क्या लिखना है इस पर भ्रमित लग रहे थे। कुछ छात्रों ने अवतरण में से ही अवतरण की भाषा में ही लिख दिया। कुछ बच्चों ने कविता की प्रथम दो पंक्तियाँ ही उतार दी। कुछ छात्र प्रश्न के उत्तर लिखने वाली दो मुख्य बातें लिखने में असफल रहे।
- (ii) पंक्तियों का मुख्य भाव लिखने में अधिकांश बच्चे भ्रमित दिखाई दिए। अधिकांश विद्यार्थियों द्वारा इस प्रश्न का सही उत्तर नहीं दिया गया। कुछ छात्रों ने इसका समुचित उत्तर भी लिखा है।
- (iii) बूँदों के स्वरों की गहराई तथा अनुभूति को बच्चे स्पष्ट कर पाने में असमर्थ रहे। इस प्रश्न का उत्तर लिखने में छात्रों को तीन मुख्य बातें लिखने में कठिनाई हुई। कुछ छात्रों द्वारा इस प्रश्न का समुचित उत्तर भी दिया गया।
- (iv) इस प्रश्न को विद्यार्थियों ने भली प्रकार से समझा तथा तरह-तरह से अपने विचार स्पष्ट किए। लेकिन सावन के मौसम में अधिक स्पष्ट नहीं कर पाए। अधिकांश छात्र इस प्रश्न का उत्तर लिखने में सफल रहे। प्रश्न स्पष्ट होने के कारण अधिकतर छात्रों द्वारा समुचित उत्तर दिया गया।

अध्यापकों के लिए सुझाव-

- प्रत्येक दोहे या पद का अर्थ समझाने पर विशेष बल दिया जाना चाहिए। चूँकि इसकी भाषा भिन्न है अतः छात्रों को समझने में कठिनाई हो सकती है।
- पद में समाहित हर भाव को स्पष्ट रूप से समझाना चाहिए।
- पदों के भाव तथा पंक्ति के अर्थ तथा यदि इसमें प्रतीकात्मक अर्थ छुपे हों तो विशेष व्याख्या की आवश्यकता समझनी चाहिए।
- कक्षा में बार-बार शब्दार्थ तथा भावार्थ की पुनरावृत्ति करनी चाहिए।
- समय-समय पर इस प्रकार के पदों से प्रश्न देकर उचित उत्तर लिखने का अभ्यास कराना चाहिए तथा छात्रों को यह निर्देश देना चाहिए कि उत्तर में अनावश्यक विस्तार से बचें।
- वर्तनी तथा शब्दों के अर्थ पर विशेष ध्यान दिलाना आवश्यक है। वर्तनी की अशुद्धियों से छात्रों को कठिनाई उत्पन्न होती है।
- दोहे से सम्बन्धित भिन्न-भिन्न प्रकार के विश्लेषणात्मक प्रश्नों के अभ्यास द्वारा भावाभिव्यक्ति को पुष्ट किया जाना चाहिए।

अंक योजना-

प्रश्न 15

- (i) कवि के अनुसार वर्षा के प्रिय संगीत भरे स्वर मन में सम्मोहन का भाव भरे देते हैं। इस मुग्ध कर देने वाले संगीत ने मन में प्रेम करने की कोमल भावनाएँ जागने लगती हैं। उनका धरती के सैंकड़ों कीटों व पक्षियों पर भी प्रभाव पड़ता है। वे प्रेम से व्याकुल हो उठते हैं। इस प्रेम-भावना के जागने से वे ही सुख के गीत गाने लगते हैं और अपने साथियों के प्रति प्रेम की पुकार करने लगते हैं।
- (ii) मेघों के छा जाने से धरती पर अंधकार का वातावरण बन जाता है। सावन के मेघों का मदमस्त कर देने वाला यह वातावरण धरती के प्राणियों के मन में मादक कामनाएँ जगाता है। कवि ने संकेत दिया है कि रात्रि का आभास दिलाने वाले मेघ संगीत की मादकता द्वारा प्राणियों में प्रेम की भावनाएँ बढ़ाते हैं। पृथ्वी पर मानों कोमल व नशीली कामनाएँ जागने लगी हैं।
- (iii) बूँदों की स्वरो का प्राणियों के मन में सीधा सम्बन्ध होता है। कवि ने कहना चाहा है कि सावन की बरसती मादक बूँदों से तन रोमांचित हो उठता है। यह संगीत लोगों के मन में प्रभाव पैदा करता है। इस प्राकृतिक दृश्य के वातावरण से लोगों का मन झंकृत हो उठता है। ऐसा लगता है कि मनो ये बूँदे व उनसे जुड़े परिवेश मनुष्य से कुछ रहस्यपूर्ण बातें कर रहा है। ऐसे में मानव का रोमांचित होना स्वाभाविक है।
- (iv) प्रकृति सौन्दर्य की इस कविता में कवि पंत ने सावन का बड़ा मनोहर वर्णन किया है। सावन में वर्षा के प्रिय संगीत भरे स्वर मन में सम्मोहन का भाव भर देते हैं। सावन ऋतु से सभी को बहुत लाभ है मई और जून की भीषण गर्मी के बाद जब वर्षा की बूँदे भारत भूमि पर पड़ती हैं तो तप्त हुई धरा तथा समस्त प्राणियों को राहत मिलती है। प्रकृति का रोम-रोम आनन्दित हो उठता है। किसानों के लिए तो वर्षा ऋतु का विशेष महत्व है। वर्षा का जल किसान की धरती माँ की तप्त आत्मा को शीतलता प्रदान करता है तथा पृथ्वी की उर्वरा बनाने में सहायक होता है। वर्षा आने पर चारों ओर हरियाली छा जाती है गर्मी के कारण जो पेड़ सूखने लगे थे वे हरे-भरे हो जाते हैं।

Question 16

Read the extract given below and answer in Hindi the questions that follow:—

निम्नलिखित पद्यांश को पढ़िए और उसके नीचे लिखे प्रश्नों के उत्तर हिन्दी में लिखिए:-

“वह चले झोंके कि काँपे
भीम कायावान भूधर,
जड़-समेत उखड़-पुखड़कर
गिर पड़े, टूटे विटप-वर
हाय! तिनकों से विनिर्मित
घोंसलों पर क्या न बीती,

डगमगाए जबकि कंकड़,
ईट-पत्थर के महल-घर
बोल आशा के विहंगम,
किस जगह पर तू छिपा था,
जो गगन पर चढ़ उठाता
गर्व से निज तान फिर-फिर

-निर्माण-

कवि- हरविंशराय 'बच्चन'

- (i) प्रस्तुत कविता के आधार पर बताइए कि आँधी ने किस-किस पर कैसा प्रभाव डाला? [2]
- (ii) कवि ने घोंसलों की तुलना किससे और क्यों की है? [2]
- (iii) 'आशा के विहंगम' पंक्ति का भाव स्पष्ट कीजिए। प्रस्तुत पंक्ति के द्वारा कवि ने मनुष्य को क्या संदेश दिया है? [3]
- (iv) निम्न शब्दों के अर्थ लिखिए:-
भीम, भूधर, विनिर्मित, विहंगम, गगन विटम [3]

परीक्षकों की टिप्पणियाँ-

- (i) आँधी के प्रभाव को छात्रों ने भली भाँति समझा और लिखने का प्रयास किया। बस कुद कैसा शब्द को अधिक स्पष्ट नहीं कर पाए। कुछ छात्रों ने आँधी द्वारा पड़े प्रभाव में पेड़-पौधे तो लिखा पर पहाड़ों का कहीं भी उल्लेख नहीं किया। कुछ छात्रों ने प्रभाव में चिड़िया का घोंसला ही लिखा तथा मुख्य बिन्दु दो नहीं लिखे। कुछ छात्रों द्वारा इस प्रश्न का उचित दिया गया।
- (ii) अधिकांश छात्रों ने प्रश्न के प्रथम भाग को तो स्पष्ट किया लेकिन क्यों पक्ष को स्पष्ट नहीं कर पाए। कुछ छात्र प्रश्न के प्रथम भाग को तो अपने विवके से अलग-अलग लिखा परन्तु द्वितीय भाग का उत्तर नहीं दे पाये। घोंसलों की तुलना पक्के मकान, महल लिखने के स्थान पर अधिकांश छात्रों ने मानव मन से की है" लिखा है। कुछ छात्रों ने समुचित उत्तर भी दिया है।
- (iii) 'आशा के विहंगम' शब्द को कुछ विद्यार्थी स्पष्ट नहीं कर पाए तथा कुछ विद्यार्थी कवि का सन्देश स्पष्ट कर पाने में असमर्थ रहे। कुछ विद्यार्थियों ने सन्देश

अध्यापकों के लिए सुझाव-

- कविता का अर्थ तथा भावार्थ पूर्ण विस्तार से बताया जाए की भाव बिल्कुल स्पष्ट हो जाए।
- कविता की व्याख्या करते समय उसका मूलभाव समझाना आवश्यक है। साथ ही अभिव्यक्ति कौशल का विकास करने के लिए निरन्तर अभ्यास करवाएँ
- कविता में दिए मुहावरों का काव्य के संदर्भ में अर्थ बताना तथा भाषा में उसके प्रयोग का अभ्यास करवाना चाहिए।
- कविता के मात्र शाब्दिक अर्थ को ही न बताकर कविता के हर भाव पर छात्रों से बार-बार चर्चा करें।
- कवि के द्वारा प्रयोग की गयी सांकेतिक भाषा की बृहत विवेचना की जानी चाहिए।

को सही लिखा, परन्तु आशा के विहंगम पंक्ति का भाव स्पष्ट करने में विद्यार्थी असमर्थ रहे।

- (iv) अधिकांश विद्यार्थियों को शब्दार्थ का ज्ञान था। कुछ विद्यार्थियों ने शब्दार्थ गलत लिखे। जिन्होंने सही लिखे उसमें वर्तनी की अशुद्धियाँ पायी गईं। शब्दार्थ में 'भूधर' तथा 'भीम' शब्दों ने विद्यार्थियों को भ्रमित किया।

अंक योजना-

प्रश्न 16

- (i) आँधी के ऐसे तेज झोंके चले कि विशाल आकार वाले भारी पहाड़ भी काँप उठे। बड़े-बड़े पेड़ या तो टूट गये या तो जड़ों समेत उखड़कर गिर पड़े। इस प्रकार के वर्णन द्वारा कवि ने आँधी के विनाशकारी पभाव को संकेतित किया है।
- (ii) कवि ने आँधी के पभाव को दिखाने के लिए पक्षियों के घोंसले की पक्के मकानों व महलों से तुलना की है। जिस तेज व विनाशकारी आँधी से ईंट-पत्थर के बने पक्के महल भी डगमगा गये, उसमें घोंसलों की क्या दशा होती है? कवि ने कहना चाहा है कि घोंसले तो तिनकों से बने होते हैं जो आँधी का सामना नहीं कर पाते। फिर भी पक्षी निराश होकर नहीं बैठ जाते। वे नये सिरे से घोंसले का निर्माण शुरू कर देते हैं। अतः मनुष्य को इस प्रकार के विनाश से घबराना नहीं चाहिए बल्कि और नई आशा लेकर नव-निर्माण में जुट जाना चाहिए।
- (iii) कवि ने आशावादी दृष्टिकोण व्यक्त करने के लिए आशा के विहंगम अर्थात् पक्षी की चर्चा की है। पक्षी सदैव आशावान रहता है। पक्षी आँधी द्वारा नष्ट हो चुके अपने घोंसेले को देखकर स्वयं को असमर्थ या निराश नहीं होने देता। वह पुनः नई मस्ती व लगन के साथ नई धुन गाता हुआ फिर से घोंसला बनाने के काम में जुट जाता है। उसकी नव-निर्माण की शक्ति की आँधी भी पभावित नहीं कर सकती। इस प्रकार कवि ने आशा रूपी पक्षी का सन्दर्भ दिया है।
- (iv) विशाल, पहाड़, बने हुए पक्षी, आकाश, पेड़।

अध्यापकों के लिए सुझाव-

- विद्यार्थियों को प्रश्न का उत्तर लिखने से पूर्व प्रश्न को ध्यानपूर्वक पढ़कर समझने के लिए प्रेरित करना चाहिए।
- कविता के केन्द्रीय भाव। मूल भाव लिखवाने का अभ्यास आवश्यक है। प्रत्येक कविता से प्राप्त प्रेरणा का लिखित अभ्यास कराएँ।
- वर्तनी संबन्धी अशुद्धियों में सुधार लाने के लिए कठिन शब्दों को बार-बार लिखवाएँ।

विषय जो परीक्षार्थियों के लिए कठिन/अस्पष्ट रहे-

प्रश्न-1 निबन्ध के कई बिन्दु थे। विद्यार्थियों ने सभी बिन्दुओं की ओर ध्यान नहीं दिया तथा उचित रीति से लिखा भी नहीं।

- (i) परिवार के सदस्य में किसका वर्णन करना चाहिए। इस बात को लेकर छात्र भ्रमित दिखाई दिए।
- (ii) छात्र त्योहार मनाने के प्रति उत्साह एवं आस्था को अधिक स्पष्ट नहीं कर पाए एवं त्योहार हमें संस्कृति से कैसे जोड़ते हैं यह बात भी अधिक स्पष्ट नहीं कर पाए।
- (iii) इंटरनेट की आवश्यकता तथा मुसीबत पक्ष को छात्र स्पष्ट करने में भ्रमित थे।
- (iv) कहानी लेखन में उक्ति का अर्थ स्पष्ट करने में भ्रमित रहे।
- (iv) चित्र परिचय लिखना है इस बात से भ्रमित थे।

प्रश्न-2 (i) औपचारिक पत्र में 'स्पीड ब्रेकर' की बाधा को अधिक स्पष्ट नहीं कर पाए।

(ii) अनौपचारिक पत्र में बच्चे प्रारूप को लेकर भ्रमित रहे तथा अतिथि के स्वागत की बात अधिक स्पष्ट नहीं कर पाए।

प्रश्न-4 (vi) (a) असफल हो जाने पर उसे भारी दुःख हुआ। वाक्य शुद्ध करने में कठिनाई।

(b) परिश्रमी व्यक्ति विपत्तियों से नहीं घबराता है। वचन बदलने में कठिनाई।

(c) जीवन-भर मैं इसी आचरण का पालन करता आया हूँ। रेखांकित शब्द का एक शब्द लिखकर वाक्य पुनः लिखने में कठिनाई हुई।

प्रश्न-5 (ii) उस व्यक्ति का विश्वास क्या है बताने में कठिनाई हुई।

(iv) कहानी का उद्देश्य लिखने में कठिनाई हुई।

प्रश्न-6 (i) उसने क्या देखा लिखने में कठिनाई।

(iii) 'क्षण-भंगुर' का अर्थ समझने में कठिनाई।

प्रश्न-7 (ii) कलंक का टीका लगाने वाला युवक कौन था? लिखने में भ्रमित हुए।

प्रश्न-8 (iv) 'कायर' तथा 'अयोग्य' शासक की बात को समझने में कठिनाई।

प्रश्न-9 (ii) 'वचन' को लेकर भ्रमित रहे।

(iv) परिस्थिति तथा लाचारी को बताने में छात्र असमर्थ रहे।

प्रश्न-10 (i) पंक्तियों का सन्दर्भ स्पष्ट करने में कठिनाई क्योंकि संदर्भ शब्द के अर्थ से छात्र अवगत नहीं।

(iii) ऋण चुकाने की बात पर भ्रमित रहे।

प्रश्न-11 (i) वक्ता तथा श्रोता में भ्रमित रहे।

(ii) श्रोता ने वक्ता से क्या-क्या कहा लिखने में कठिनाई।

- प्रश्न-12** (iv) मनोभावों में क्या अन्तर आया समझने में कठिनाई।
- प्रश्न-13** (iii) श्रोता पर वक्ता के कथन का क्या प्रभाव पड़ा तथा क्या उत्तर दिया? लिखने में कठिनाई।
- प्रश्न-14** (ii) बादलों की तुलना किससे की बताने में कठिनाई।
(iii) 'नीड़' और 'किनारा' शब्दों का प्रयोग किस सन्दर्भ में हुआ लिखने में कठिनाई।
- प्रश्न-15** (ii) पंक्तियों का भावार्थ लिखने में कठिनाई।
(iii) बूँदों के स्वरों की गहराई तथा अनुभूति को छात्र स्पष्ट कर पाने में असमर्थ रहे हैं।
(iv) सावन के मौसम को अधिक स्पष्ट नहीं कर पाए।
- प्रश्न-16** (ii) क्यों प्रश्न को स्पष्ट करने में असमर्थ रहे।
(iii) 'आशा के विहंगम' शब्द को स्पष्ट करवाने में असमर्थ रहे।
(iv) शब्दार्थ में 'भूधर' तथा 'भीम' से भ्रमित रहे।

विद्यार्थियों के लिए सुझाव-

- प्रश्न पत्र पढ़ने के लिए निर्धारित 95 मिनट का सदुपयोग करें। प्रश्न पत्र को दो बार ध्यानपूर्वक और स्थिरचित्त से पढ़ें।
- प्रश्न को गहराई से समझने का प्रयत्न करें।
- निबन्ध-लेखन का अभ्यास आवश्यक है। लेखन से पूर्व दिए गये विषय ध्यानपूर्वक पढ़ें और समझें।
- निबन्ध की एक रूप रेखा बना लें एवं सभी आवश्यक बिन्दुओं समावेश करें। असंगत व अनावश्यक बातें न लिखें।
- निबन्ध की भाषा को सुन्दर बनाने के लिए मुहावरे व उक्तियों का यथोचित प्रयोग करें।
- निबन्ध के तीनों भागों यथा प्रस्तावना, मुख्य विषय और उपसंहार का विशेष ध्यान रखें व अनुच्छेद परिवर्तन का खास ख्याल रखें।
- पत्र लेखन में पत्र का प्रारूप, संबोधन, अभिवादन इत्यादि का विशेष अभ्यास करें।
- व्यवहारिक व्याकरण का मौखिक एवं लिखित अभ्यास करें। अपठित गद्यांश का उत्तर अपनी भाषा में लिखने का अभ्यास करें।
- निर्देशानुसार वाक्य परिवर्तन करते समय लिंग, वचन, काल आदि में अनावश्यक परिवर्तन न करें।
- पाठ्य पुस्तकसें के सभी पाठों को ध्यान से पढ़ें। मात्र कहानी समझकर नहीं।
- पाठों में आये विशेष संदर्भों की जानकारी अवश्य प्राप्त करें तथा पाठ का आलोचनात्मक अध्ययन करें।
- पाठ के मुख्य बिन्दुओं को बार-बार लिखकर अभ्यास करें और तर्क सहित उत्तर लिखने का प्रयास करें।

- अपने विचारों की अभिव्यक्ति करना सीखें व शब्दों के उचित प्रयोग पर ध्यान दें।
- वर्तनी संबन्धी अशुद्धियों पर ध्यान दें। श्रुतलेख के माध्यम से उसे सुधारने का प्रयास करें।
- हस्तलेख को अभ्यास द्वारा सुन्दर बनायें।
- शब्द भंडार की वृद्धि के लिए पाठ्य पुस्तक के अतिरिक्त अन्य पुस्तकें, पत्र-पत्रिकाएँ इत्यादि पढ़ें।
- व्याकरण के नियमों का पालन करें।
- स्वध्याय की आदत डालें। समय-समय पर पुस्तकालय से पुस्तकें लेकर पढ़ें।
- नाटक, एकांकी इत्यादि मंचन में रूचि लें। इससे भी संदर्भ याद रखना सरल हो जाता है।
- हिन्दी साहित्य तथा भाषा सम्बन्धी अन्य गतिविधियों में अवश्य भाग लें।
- चारित्रिक विशेषताएँ लिखने में रूचि रखें और उसका अभ्यास करें।

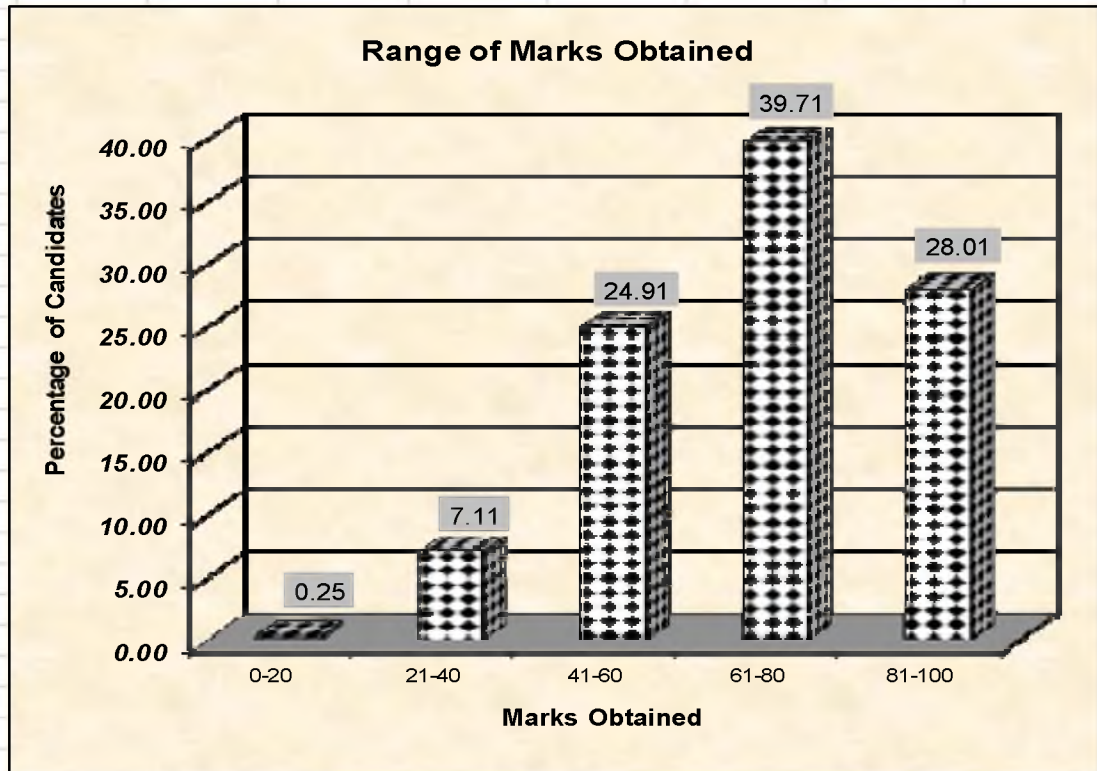
HISTORY, CIVICS & GEOGRAPHY

STATISTICS AT A GLANCE

Total Number of students who took the examination	140,868
Highest Marks Obtained	100
Lowest Marks Obtained	12
Mean Marks Obtained	68.97

Percentage of Candidates according to marks obtained

Details	Mark Range				
	0-20	21-40	41-60	61-80	81-100
Number of Candidates	354	10014	35097	55940	39463
Percentage of Candidates	0.25	7.11	24.91	39.71	28.01
Cumulative Number	354	10368	45465	101405	140868
Cumulative Percentage	0.25	7.36	32.27	71.99	100.00



HISTORY & CIVICS

H.C.G. - Paper – 1

I. ANALYSIS OF PERFORMANCE

Question 1

- (a) Name the *two* types of authority in a federal set up in India. [1]
- (b) What is meant by the term Universal Adult Franchise? [1]
- (c) How is the Speaker of the Lok Sabha elected? [1]
- (d) When can the Vice-President cast a vote in the Rajya Sabha? [1]
- (e) State *one* reason why the President is elected indirectly. [1]
- (f) Who is the Executive head of a State? [1]
- (g) Mention the different categories of ministers in the Union Council of ministers. [1]
- (h) Explain the term ‘Collective Responsibility’. [1]
- (i) Name the courts that are empowered to issue writs for the enforcement of Fundamental Rights. [1]
- (j) Which is the highest criminal court in a district? [1]

Examiners’ Comments

- (a) A few candidates wrote Union Legislature and State Legislature as authority instead of mentioning the two types of authority in a federal set-up,
- (b) Most candidates answered correctly though a few mentioned only ‘Adult’ without specifying the age.
- (c) Majority of candidates answered correctly. However, a few mentioned that the Speaker is elected by the President or directly by the people.
- (d) With the exception of a few, most candidates answered the question correctly.
- (e) Most candidates were able to answer the question correctly.
- (f) Most candidates wrote the correct answer. However few wrote the real executive (Chief Minister) and President rather than the nominal head-Governor.
- (g) Most candidates answered correctly barring a few who mentioned ‘Council of Ministers’ as one of the categories.

Suggestions for teachers

- Lack of understanding of the word, ‘authority’ and mentioning the two houses of Parliament as authority. Clearly explain the term authority – meaning the government. The difference between ‘Legislature’ and authority must be explained thoroughly.
- Explain the term Universal Adult Franchise as one of the salient features of the constitution that makes India the largest democracy in world.
- Emphasise that the Speaker is elected from amongst the members of the Lok Sabha by a simple majority and has to resign from the party he/she belongs during the tenure of the Speaker.
- Explain and emphasise the fact that the Vice-President exercises this power only to decide on a particular issue on rare occasions.

- (h) The term, 'Collective responsibility' has been explained correctly by most candidates. However, few got confused and explained individual responsibility.
- (i) Majority of candidates were able to write correct answers. A few however mentioned only the Supreme Court.
- (j) Most candidates answered correctly. However, a few wrote Criminal Court taking a clue from the question.

- Explain that India is a Parliamentary form of Government where the Prime Minister and the Council of Ministers hold real power. The President is only a nominal head.
- Emphasise clearly that 'a State' is any one State and 'The State' would mean the Country. So the Governor and not the President would be the correct answer. The Chief Minister is the real executive of a State.
- The three different categories of ministers in correct sequence should be explained and that various ministers are part of one of the three categories of ministers.
- Explain collective responsibility as a joint responsibility and team work of the Council of Ministers. They should also explain the difference between collective responsibility and individual responsibility.
- Highlight the functions of Supreme Court and the High Courts while teaching or revising the topic.
- Explain the difference between Civil and Criminal cases and the various types of courts in a district where these cases are decided.

MARKING SCHEME

Question 1.

- (a) Union and the States.
- (b) Every citizen who is 18 years and above is entitled to vote
- (c) Speaker is selected by the House from among its members by a simple majority of members and by voting.
- (d) To break a tie.
- (e) Power resides in the Council of Ministers / Prime Minister is the real head / India has a parliamentary form of Government and President is only a Nominal Head / It would be an anomaly if the President is directly elected and not given real power / framers wanted election of the President to be a dignified affair / loss of time, money and energy / would be difficult to

provide electoral machinery for millions of people / direct elections would place too much power in the hands of illiterate masses.

- (f) Governor.
- (g) Cabinet Ministers, Ministers of State, Deputy Ministers.
- (h) A measure accepted by the Cabinet is regarded as the joint responsibility of everyone / If a no confidence motion is passed in the House the Council of Ministers must resign / They swim and sink together.
- (i) Supreme Court and High Courts.
- (j) Sessions Court / Court of the Sessions Judge.

Question 2

- (a) What was the General Service Enlistment Act? [2]
- (b) What was the influence of Western education on the minds of the educated Indians in the 19th Century? [2]
- (c) Who exposed the economic exploitation of India through his book 'Poverty and Un-British Rule in India'? [2]
- (d) What was the importance of the Lucknow Pact of 1916? [2]
- (e) Name the leaders of the Khilafat Movement that was launched in India to champion the cause of the Caliph of Turkey. [2]
- (f) Why was the Simon Commission boycotted by the Indians? [2]
- (g) What were the two proposals related to the Princely States in the Mountbatten Plan? [2]
- (h) What was the immediate cause of the First World War? [2]
- (i) What is meant by the term Cold War? [2]
- (j) Name the two architects of NAM. [2]

Examiners' Comments

- (a) Most candidates wrote correct answers. A few however misinterpreted it for the 'Doctrine of Lapse' with some even writing vague laws.
- (b) Most candidates answered the question correctly.
- (c) Most candidates answered correctly though a few committed errors.
- (d) Most candidates answered the question correctly. A few however, mentioned the terms of the Lucknow Pact instead of its importance.
- (e) With the exception of a few candidates, most candidates wrote the correct answer.
- (f) Majority of candidates answered correctly. A few however did not read the question carefully and overlooked the word 'Boycott' and wrote in general about the Simon Commission and its recommendations.
- (g) Most candidates answered correctly, with a few however mentioning the general proposals rather than those related to the 'Princely States'.
- (h) Majority of candidates answered correctly, but a few mentioned the 'greased cartridges' incident as the immediate cause of the First World War.
- (i) Most candidates wrote correct answers. However answers written by a few candidates were irrelevant and illogical, e.g war that is fought in winter or in cold.
- (j) Majority of candidates answered correctly as only names had to be written. Guesswork was witnessed in attempting to write the correct names by a few candidates.

Suggestions for teachers

- The Acts have to be highlighted while the chapter is being taught. Stress in detail the causes of the First War of Independence 1857.
- Explain the Ideals of Liberty, Equality and Fraternity that influenced the minds of the educated Indians. Focus on the works of great philosophers and revolutionaries who inspired Indians to think on similar ideas to achieve Independence.
- Highlight the historical events with the help of a time – line chart and connect it with the historical personalities of that era.
- Terms of Lucknow Pact are different from its importance –that needs to be explained thoroughly.
- Remind students that the names of the leaders of the Khilafat movement must be kept in mind to avoid committing errors.
- Explain the difference between 'Boycott' and 'recommendations' of the Simon Commission to make understanding easier for students.
- While explaining the lesson – Partition of India, explain how they need to apply their analytical reasoning for general or specific answers asked in the question.
- Students should be advised to read the question carefully before answering. A few made mistakes regarding the immediate cause of the First World War.
- It is the direct explanations of the term 'Cold War'. If understood well it can be answered correctly and in specific words.
- Instruct students to learn the full names of the architects of NAM and highlight it through an oral feedback in the class.

MARKING SCHEME

Question 2.

- (a) The Act provided that all recruits of the Bengal Army should be ready for service within or outside India.
- (b) Western education instilled the ideas of liberty and equality / gave Indians a common language

and they could now plan a common program / works of Locke, Mill, Spencer, Rousseau, Voltaire inspired Indians to strive for freedom / educated Indians in England understood the working of free institutions and thought in terms of similar institutions in India / Drew inspiration from American War of Independence, French Revolution, Unification of Germany and Italy.

- (c) Dadabhai Naoroji.
- (d) It was an important step towards Hindu Muslim unity / Brought together Moderates and Assertive Nationalists / Brought the League and the Congress together.
- (e) Ali brothers / Mohammad Ali and Shaukat Ali.
- (f) All parties boycotted the Simon Commission as all its members were British / Parties protested against the all White composition of the Commission.
- (g) i) All treaties with the Princely States would come to an end.
ii) They would be free to join any of the dominions (India or Pakistan) or to remain independent.
- (h) Sarajevo Crises / Assassination of Archduke Francis Ferdinand – the Crown Prince of Austria
 - (i) Cold War is a state of extreme political unfriendliness / a state of tension between two or more countries / a state of uneasy peace / propaganda war / ‘hot peace’/war of nerves.
- (j) i) Jawaharlal Nehru of India.
ii) Marshall Joseph Tito of Yugoslavia.
iii) Abdel Nasser of Egypt.

Question 3

Discuss the relationship between the two houses of a State Legislature with reference to the following:

- (a) Money Bills. [3]
- (b) Non-Money Bills. [3]
- (c) Control over the Executive. [4]

Examiners' Comments

- (a) Most candidates overlooked the word 'State Legislature' in the question and therefore explained the powers of the Lok Sabha and the Rajya Sabha with regard to Money Bills. The procedure was not in order which clearly shows that they were unsure of the procedure and relations between the two houses of the Parliament and State Legislature.
- (b) Barring the introduction of the Non-Money Bill, the entire procedure witnessed confusion in many answers. Some mentioned about the joint session, a procedure followed in the Parliament and the time period (three months and thirty days) was also not clear – an indication of lack of comprehension and preparation.
- (c) This part was correctly answered by most candidates. There were many points that could be mentioned. Candidates must know the meaning of each term to be confident and to avoid committing errors.

Suggestions for teachers

- Ensure students recollect the names of the two houses at the Centre and State levels, the relations between the two houses, importance of each house and the reasons why the lower house is important in case of Money Bills.
- Explain that there is a different method of passing Non-Money Bills in the Parliament and State Legislature. There is no joint sitting in the State Legislature.
- Even if explanations are not required, it is imperative for teachers to explain the terms No Confidence Motion, Adjournment Motion, etc., as it will facilitate students to attempt such questions in future.

MARKING SCHEME

Question 3.

- (a) No Money Bill can be introduced in the Legislative Council. The Council has no power except to make recommendations within fourteen days from the date of its receipt of the bill. The Legislative Assembly may accept or reject its recommendations. If a money bill is not returned within fourteen days, it shall be deemed to have been passed in the form in which it was passed in the Assembly.
- (b) A Non-Money Bill may originate in either House of the Legislature. The Legislative Council may accept or reject it / it can keep the bill for three months or may pass the bill with amendments. The Assembly may not agree to the amendments and may pass the bill again. Now it becomes obligatory for the Council to consider it within 30 days. After 30 days it (the bill) will be deemed to have been passed by both the Houses. It is then sent to the Governor for his assent. There is no provision for a joint sitting of both Houses to resolve this deadlock.
- (c) The Legislative Council may exercise control over the Executive by means of questions, discussions and debate, but a censure motion or a no confidence motion against the Government can be passed only in the Legislative Assembly.

Question 4

At the head of the Council of Ministers in a State is the Chief Minister, who is the real Executive Head of the State. In this context explain the following:

- (a) The appointment of the Chief Minister. [3]
- (b) His relationship with the Council of Ministers. [3]
- (c) His relations with the Governor. [4]

Examiners' Comments

- (a) Candidates mentioned the relevant points but missed out on a crucial point – when no party commands majority, than Governor uses his discretion in appointing the Chief Minister. The other errors were – appointed by the President on the advice of Governor, etc.
- (b) Majority of candidates answered correctly. However, some candidates could not mention important points and repeated the answer. One point was broken into two parts.
- (c) Candidates were unsure of the specific answers in relation with the Governor. They mixed the Chief Minister's relation with the Council of Ministers. Some points were repeated from Part B. This showed their inability to put correct points under parts (B) and (C).

Suggestions for teachers

- Explain the correct procedure and the role of Governor in appointing the Chief Minister.
- It is important to highlight the relevant points and insist that they make a note of it and learn to write correct answers.
- Explain that the Chief Ministers have different relations with the Council of Ministers and that with the Governor. Clear and specific points need to be highlighted regarding the position of the Chief Minister with that of the Governor, Council of Ministers and Legislature.

MARKING SCHEME

Question 4.

- (a) The Chief Minister is appointed by the Governor. The Governor summons the leader of the majority party to form the Government. If no party commands real majority, the Governor shall exercise his discretion in selecting the Chief Minister.
- (b) i) **Formation of the Ministry:** The Ministers are appointed by the Governor on the advise of the Chief Minister/ The portfolios are assigned by the Chief Minister
- ii) **Removal of Ministers:** The Ministers hold office during the pleasure of the Governor. In fact it the Chief Minister who may ask any Minister to resign.
- iii) **The Chief Minister presides over the meeting:** The Chief Minister presides over the Cabinet meetings and decides its agenda. He may accept or reject proposals for Cabinet discussion.

iv) **Co-ordinates the working of various departments.** The Chief Minister plays a special role in Directing the policy of the Government

(c) In relation to the Governor:

1. To aid and advise the Governor.
2. To act as a link between the Council of Ministers and the Governor.
3. Governor's Address is prepared by the Chief Minister and his Cabinet.

Question 5

The country's Judicial System has a Supreme Court at its apex. In this context discuss the following:

- (a) Manner of appointment of judges. [3]
- (b) Term of office and removal of judges. [3]
- (c) Its power of 'Judicial Review'. [4]

Examiners' Comments

- (a) Most candidates answered correctly barring a few who wrote that judges are appointed by the Prime Minister or Chief Justice of Supreme Court. Some mentioned qualifications instead of appointment.
- (b) Majority of candidates wrote the correct age of retirement. Some however confused it with the age of High Court Judges. Removal of judges was correctly answered though presentations showed a lack of confidence.
- (c) Concepts were unclear in the minds of a few candidates who explained Revisory jurisdiction or Court of Record in place of Judicial Review.

Suggestions for teachers

- Explain topics comprehensively, followed by active classroom discussions to ensure understanding of concerned topics. This needs to be supported with written assignments.
- Highlight the important points while teaching the procedure of removal of judges and explain them with clarity so that students are confident of the facts and present them accordingly.
- While teaching functions of the Supreme Court, highlight the various functions and ensure that students understand what is expected of them to write under each function.

MARKING SCHEME

Question 5.

- (a) The judges of the Supreme Court are appointed by the President after consultations with such of the Judges of the Supreme Court and the High Courts as the President may deem necessary. While appointing the judges, the Chief Justice of India shall be consulted. The Chief Justice must consult four senior judges of the SC before making any recommendation to the President.
- (b) A Supreme Court judge retires at the age of 65 years.
A judge may resign by writing to the President/ may be removed by the President on grounds of proved misbehaviour and incapacity/ may be removed by an Address of each House of Parliament
- (c) The Supreme Court has the power to examine the laws passed by the Legislature and the orders issued by the Executive Officials whether or not they are permitted by the Constitution / if the Court finds that a law or order of the Executive violates the Constitution it declares it null and void./ declare it ultra vires. The Supreme Court is the Guardian and the Final Interpreter of the Constitution.

Question 6

The early Congressmen were liberal in their views and programmes. This led to the rise of Assertive Nationalists who demanded more forceful action against the British. In this context discuss the following:

- (a) Reasons why the early Congressmen were called Moderates. [3]
- (b) How did Moderates differ from the Assertive Nationalists in realizing their objectives? [3]
- (c) How did Tilak bring a new wave in Indian politics that was distinct from the early Congressmen? [4]

Examiners' comments

- (a) The question was correctly answered by majority of candidates.
- (b) The question clearly states how two groups differed in realizing their objectives i.e., the methods adopted by each faction to realise their goals. Many candidates did not read the question carefully and hence could not be specific.
- (c) Most candidates answered the question correctly.

Suggestions for teachers

- The role of moderates must be explained to clear doubts in the minds of students.
- While teaching the lesson, explain the terms – aims, objectives, methods and achievements. They can also highlight the various points which can be mentioned under each of them. This will help them to be sure of the points and give them confidence to write correctly.

Suggestions for teachers

- Emphasise on the important points while teaching topics comprising of leaders and their individual contribution.

MARKING SCHEME

Question 6.

- (a) i) Early Congressmen had unlimited faith in the British sense of justice and fair play.
ii) They asked for Constitutional reforms.
iii) Their demands, political opinions and methods of struggle were moderate.
iv) They carried out agitations through petitions and resolutions.
- (b) By Swaraj the Moderates meant a system of Government as found in the self Governing British Colonies. The Moderates asked for Dominion status that is self Government under the British Crown, but the object of the Assertive Nationalists was absolute Swaraj. Tilak said, “Swaraj is my birthright and I will have it”.
- (c) Tilak talked of Swaraj, Swadeshi and Boycott. Through his weeklies the Mahratta and Kesri, he made bitter attacks on the British Government. He revived the Ganpathi festival and Shivaji festival in Maharashtra. He organized ‘Akharas’ and ‘Lathi’ Clubs for the youth. In 1896, he led a no-rent campaign and asked cultivators not to pay land revenue. He opposed the partition of Bengal and transformed the anti partition movement into a movement for Swaraj. He launched the Home rule Movement in 1916 in Maharashtra. He wrote three great works – Gitarahasya, The Orion, The Arctic Home in the Vedas. He is regarded as the fore-runner of Gandhi. Gandhis’s ideal of complete independence was similar to Tilak’s ideal of Swaraj.

[Any four points]

Question 7

The reasons for the formation of the Muslim League were many. In this context explain:

- (a) Any *three* factors that led to the formation of the Muslim League in India. [3]
- (b) Any *three* demands made by the Muslim Deputation in 1906 to the Viceroy Lord Minto. [3]
- (c) What were the aims and objectives of the Muslim League? [4]

Examiners' Comments

- (a) Most candidates answered this part of the question correctly.
- (b) The demands were mentioned but it did not convey the complete meaning. Some candidates even mentioned separate Pakistan as one of the demands. Incomplete answers reflect lack of preparation.
- (c) Only a few candidates wrote the complete answer correctly. A few were unsure of what to write under aims and objectives. Some confused it with demands. Points relating to questions on (b) and (c) were repeated.

Suggestions for teachers

- Stress must be laid on explaining each factor responsible for the formation of the Muslim League which will ensure a better understanding of the topic.
- The demands, aims and objectives are to be handled carefully as different points are accepted under different headings. Explain points well to avoid errors being committed
- Lay stress on understanding the aims and objectives of the Muslim League.

MARKING SCHEME

Question 7.

- (a) i) **Divide and rule:** After the revolt of 1857, the British followed a policy of divide and rule. This was done to retain power by causing friction within the various sections who could otherwise unite against them. They appeased the princes and the Zamindars and sowed the seeds of disunity between the Hindus and the Muslims. They treated the Muslims with suspicion and held them guilty of the revolt of 1857. Civilian offices were denied to the Muslims, but as the Congress gained force, the Government's hatred towards the Hindus grew. They branded the Congress as a Hindu organization which should be avoided at all costs. The partition of Bengal was a clear example of the application of divide and rule.
- ii) **Educational and Economic backwardness of the Muslim Community:** The children of the Hindus went to schools run by the Government to receive western education while the Muslims stayed away from it. This widened the gap between the two communities. The Muslims could not get Government jobs which required special training. The Muslims thought by supporting the Government they would get Government jobs or other rewards and honours.
- iii) **Baneful impact of communal instruction in History:** History textbooks contained matter which encouraged religious intolerance. The British authors wrote that the Muslims had captured India from the Hindus. This offended the Hindus. The British also gave accounts of the cruelty inflicted by the Muslim rulers on their Hindu subjects. Such lessons in the text books caused communal hatred.
- iv) **The Assertive Nationalists gave Nationalism a religious tinge:** Assertive Nationalists drew inspiration from traditional Hinduism. Tilak revived Ganpathi and Shivaji festivals to rouse heroism in the youth. He was not communal or sectarian in his outlook, but the British gave a communal colour to ferment Hindu-Muslim hatred.
- v) **Sir Syed Ahmed Khan and the Aligarh Movement:** In the beginning Syed Ahmed Khan was a progressive Nationalist, but under the influence of Mr. Beck, the Principal of M.A.O. he changed and advised the Muslims not to join the Congress. He feared that when the British withdrew, the Hindus would play a dominant role in the political, social and economic affairs of the country. He tried to promote loyalty towards the British and win their favour. He said that the success of the Congress would mean suppression of the

Muslims. Thus M.A.O. became the center of a movement known as the Aligarh movement. The theme of the movement was “loyalty, approval and support of Government”.

- vi) **Anglo-Oriental Defence Association:** Sir Syed Ahmed Khan took the lead in the establishment of the Mohammadan Aglo Oriental Defence Association in 1893, whose object was to promote loyalty towards the rulers and prevent Muslims from participating in any political movement.
- (b) (1) Representation of Muslims in elected bodies on the basis of their political importance and not on their numerical strength.
(2) Separate electoral constituencies for the Muslims in the Provincial Council and the Imperial Legislative Council.
(3) Preference to be given to Muslims while nominating members of the Viceroy’s Council.
(4) Reservation of seats for Muslims in the state services.
(5) More State aid for promoting new Muslim Universities.
- (c) i) To promote among Indian Muslims feeling of loyalty among the British Government. The League would also remove misconception that may arise as to the intentions of Government in relation to Indian Muslims.
ii) To protect the political and other rights of the Muslims and to place their needs and aspirations before the Government in mild and moderate language.
iii) To prevent the rise of any feeling of hostility between Muslims and other communities, without adversely affecting the aforesaid objectives of the League.

Question 8

The Congress working committee passed the famous ‘Quit India’ resolution at Wardha in July 1942. With reference to this, answer the following questions:

- (a) What were the reasons for the passing of this resolution? [3]
(b) What was the British Government’s reaction to the ‘Quit India’ Movement? [3]
(c) What was the impact and significance of this movement? [4]

Examiners’ Comments

- (a) Most candidates answered correctly however a few got confused with the Non-Cooperation Movement and mentioned the Jallianwala Bagh incident and Rowlatt Act as the reasons.
(b) This part of the question was correctly answered. However, candidates must write comprehensive answers with all details required.
(c) This part too was answered correctly. There were many relevant points which they could write. Some have however repeated points or wrote two points meant for a single point

Suggestions for teachers

- The various reasons for the passing of the Quit India resolution must be discussed in order of importance with an explanation behind each reason so that students have a clear idea about them.
- Mention the importance of the British reaction in simple language for better understanding.
- To avoid irrelevant points and repetition lay emphasis that facts must be made clear for a better understanding. Learning should be reinforced by revision so that repetition can be avoided and relevant points written.

MARKING SCHEME

Question 8.

- (a) i) **Failure of Cripp's Mission:** Created discontent in the country. People felt that the Government was unwilling to concede to India the right of self-government. Indian leaders wanted the Viceroy to act as the Constitutional Head till a new Constitution was framed. This was not acceptable to the Government. The Congress could no longer remain quiet.
- ii) **Worsening of communal problem:** The Muslim League session at Lahore in 1940 set its official seal on the idea of Pakistan. Jinnah proclaimed that Muslims could not expect justice at the hands of the Congress.
- iii) **Japan's threat to India:** Gandhi felt that the situation now called for complete independence, only then could the country resist the Japanese invasion
- (b) The Government followed a policy of repression. Gandhi, Azad and other prominent leaders were arrested. Many were killed and injured.
- (c) i) The movement was an important landmark in India's struggle for freedom.
- ii) It instilled new confidence in the Indians. It aroused among them a spirit of total sacrifice.
- iii) The British Government's days in India were numbered. There was nothing to stop the Indians from attaining freedom.
- iv) The young and old all joined in the struggle for independence.

Question 9



Study the picture given above and answer the questions that follow:

- (a) Identify the leader in the picture. [2]
- (b) State any *four* factors that led to the rise of dictatorships in Germany and Italy. [4]
- (c) Why did he invade Poland? State *two* similarities between Fascism and Nazism. [4]

Examiners' Comments

- (a) A majority of candidates correctly answered the question by identifying the leader in the picture. Only a few wrote incorrect answers.
- (b) Most candidates correctly explained the reasons that led to the rise of dictatorship in Germany and Italy. However a few candidates mentioned their policies.
- (c) Both parts of this question were answered correctly by most candidates.

Suggestions for teachers

- This is a picture based question and facilitates in scoring well. Support students in giving relevant questions based on all important personalities included in the syllabus.
- A comparative study regarding the rise of dictatorship in Germany and Italy must be done simultaneously as both countries to a certain extent had identical situations being faced and witnessed.
- This was the question based on facts which needs explanations. Increase learning techniques by giving students comprehensive views in a simple form.

MARKING SCHEME

Question 9.

- (a) Adolf Hitler; Nazi
- (b) i) Dissatisfaction with the peace treaties: Italy had joined the war on the side of the Allies. They had contributed much to the success of the Allies in the war, but when it came to dividing the spoils of the war the Allies deserted her. Italy had no valuable addition to her territory. Italians felt they had won the war but had lost the peace.
Germans felt they been cheated and humiliated by the Treaty of Versailles. Germans were forced to cede large chunks of her territory to France, Belgium, Poland and Denmark. Her overseas possessions and colonies were divided amongst the Allies. The total strength of her army was reduced. This caused great insecurity among the Germans.
- ii) Economic factors: Economic conditions in Italy were very bad after the war. War debts and budget deficits caused great difficulty. The salaried employees, the farmers and the industrial workers felt the pinch of the post world war inflation. Young Italians found no employment. There were agrarian riots and strikes in the factories.
 - Huge reparations had been imposed on Germany, a defeated nation, as war indemnity. The financial crisis forced Germany to borrow recklessly. There was high rate of inflation and

unemployment. Under these circumstances the Nazi party had its ranks swollen by new recruits specially the youth.

- Inefficient and corrupt democratic Government; The post war democratic Governments were weak. They could not respond to the needs of the people. Italy was unable to control industrial and agrarian riots. In Germany, a liberal democratic Government was established but this was an unstable Government. Between 1919 to 1933 there were as many as 21 ministries headed by 12 Chancellors. The people were looking for a stronger Government with a firmer economic program.
- Rise of totalitarian ideologies: The philosophy of Hegel had flourished in Italy before Fascism was thought of. His philosophy had great intellectual depth. His pupils justified an authoritarian regime. It appealed to the masses because it glorified power. Dictatorial ideas appealed to the masses in Germany also.
- Class conflicts: Fascist and Nazi parties were being supported by industrialist, big businessman and landlords. The economy was in crisis and the workers were demanding higher wages and better conditions for work. Italy seemed to be heading towards a communist revolution. Financial support for fascism came from the moneyed class, who wished to suppress the workers.
- Charismatic leaders: Both Mussolini and Hitler were able to attract and inspire people by their personal qualities. In Italy Mussolini was called 'Duce' which meant leader and Hitler became the saviour of the Germans. He became the 'Fuhrer'.

(c) Hitler had been demanding Danzig Corridor because it was inhabited mainly by Germans. By occupying Danzig Corridor he could connect East Prussia with Germany. Poland was accused of committing atrocities on Germans living there. On Sept. 1, 1939, German troops stormed into Poland.

Similarities are:

- (1) To have faith in the totalitarian rule.
- (2) To despise democratic political systems.
- (3) To uphold one party and one leader.
- (4) Glorify war.
- (5) Narrow Nationalism
- (6) Anti-communist and anti-democratic rule.

Question 10

The United Nations Organization was established to maintain peace and ‘promote social progress and better standards of life in larger freedom.’ With reference to this, explain the following:

- (a) The composition of the Security Council. [3]
- (b) The functions of the Security Council related to maintaining World Peace. [3]
- (c) The role of UNESCO in the development of Science and Technology. [4]

Examiners’ Comments

- (a) Most candidates wrote correct answers. However some did not mention all points required in the answer.
- (b) Answered correctly by most candidates, though some candidates wrote general functions of the Security Council rather than those related to the maintenance of world peace.
- (c) Most candidates were unclear and unsure about writing the correct answer as they were ill prepared on the various agencies of the UN.

Suggestions for teachers

- Instruct students to cover all relevant points including the number of permanent and non-permanent members.
- Attach sufficient significance to the fact that when students study the functions of the organs of the U.N. they must learn them comprehensively.
- While teaching major agencies of the U.N. students must be advised to learn their functions under different headings as functions are to be written as per requirements of the question.

MARKING SCHEME

Question 10.

- (a) The Security Council consists of 15 members. Five permanent members are China, France, Russia, Britain and USA. 10 non-permanent members are elected by the General Assembly by a two third majority for a two year term.
- (b) The Security Council’s primary responsibility is the maintenance of peace and security.
 - i) The Security Council may investigate any dispute or situation which might lead to International friction / It may recommend appropriate methods to settle such disputes by negotiation, mediation, arbitration or a judicial settlement / When none of the peaceful methods succeed it can impose economic sanctions against the aggressor and sever diplomatic relations / As a last resort it can take military action against the Aggressor.
- (c) Role of UNESCO in promoting Science and Technology :

UNESCO promotes basic research in fields like Geology, Mathematics, Physics and Oceanography. / Engineering and technology schemes in many developing countries are being financed by UNESCO. / It organizes regional and world conferences to bring together scientists, technicians and technologists. / It provides information through bulletins, journals and exhibitions /encourages the study of social sciences.

Topics found confusing /difficult:

- Two types of authority in a federal set up.
- Executive head of a State.
- Relationship between the two houses of a State Legislature over Money and Non-Money Bills.
- Power of Judicial Review.
- Chief Minister’s relations with the Council of Ministers and the Governor.
- Demands made by the Muslim Deputation in 1906.
- Functions of Security Council relating to the maintenance of World peace.
- Impact and Significance of the Quit India Movement.
- The role of UNESCO in the Development of Science and Technology.

Suggestions for students:

- Write relevant points by reading the question carefully.
- Study the entire syllabus and avoid selective study.
- Be attentive in the classroom when explanations and discussions are in progress.
- Be careful and specific while writing answers.

GEOGRAPHY
H.C.G. - Paper – 2

II. ANALYSIS OF PERFORMANCE

Question 1

Study the extract of the Survey of India Map sheet No. **45D/7** and answer the following questions:

- (a) Give the six figure grid reference of:
- (i) Triangulated height 217
 - (ii) A lined well near Chekhla. [2]
- (b) (i) Name the left bank tributary of the main river.
- (ii) State the direction in which this left bank tributary is flowing. [2]
- (c) (i) Mention a special feature associated with the streams in grid square 9879.
- (ii) Name the types of drainage pattern found in grid square 9382. [2]
- (d) Give the four grid reference of each of the following:
- (i) Open scrub
 - (ii) Bantawada. [2]
- (e) Name *two* relief features that can be seen in grid square 9782 and 9574. [2]
- (f) Why do you find limited cultivation in the map extract?
Give *two* reasons for your answer. [2]
- (g) What is the compass direction of Antroli (9576) and Chekhla (9281) from Sangla? [2]
- (h) What type of rainfall is experienced in the region shown in the map extract? Justify your answer giving one reason. [2]
- (i) Calculate the distance in kilometres along the cart track between Chitrasani (999747) and Pirojpura (978753). [2]
- (j) (i) What is the geographical name that you would give to the general pattern of settlements in the region shown on the map.
- (ii) Name *one* region shown on the map which is unsuitable for the cultivation of crops. [2]

Examiners' Comments

- (a) Errors were committed by candidates in the 3rd and 6th digits of grid references.
- (b) Many candidates wrote incorrectly due to a confusion between a tributary and river hence the direction too was incorrect.
- (c) (i) Many candidates wrote barren land instead of broken ground.
(ii) Most candidates wrote correct answers.
- (d) Most candidates answered both parts of the question correctly.
- (e) Candidates could not write the correct term for relief features.
- (f) Most candidates answered this question correctly, but a few got confused with the term 'Limited Cultivation'.
- (g) Some candidates were confused since two directions were asked from one place.
- (h) Some candidates wrote monsoon rainfall or scanty rainfall.
- (i) Candidates made mistakes in obtaining an exact six figure grid and also in measurements. A few candidates did not mention the units.
- (j) (i) This part of the question was answered correctly.
(ii) Most candidates could not locate the region on the map. Some candidates wrote four figure grid references.

Suggestions for teachers

- Additional and extensive practice of six figure grid reference must be conducted.
- Teach students about river banks and clarify the meaning of tributaries.
- Draw the symbol on the blackboard and explain the causes of formation of broken ground.
- Revision and practice should be given due emphasis.
- Contours and cross sections should be drawn on the blackboard to teach relief features.
- Students should be encouraged to study details of land use from the textbook.
- Insist on using the keyword 'FROM' to another place, while teaching cardinal directions.
- Teach students about the nature of rainfall being 'Seasonal' and evidences to support the same.
- Explain how the exact location of six figure grid is to be carried out. Importance of 'unit' must be reminded to students.
- Students should be told that 'region' refers to an area.

MARKING SCHEME

Question 1.

- (a) (i) 940792
(ii) 926814
- (b) (i) Balaram Nadi
(ii) Towards North West
- (c) (i) Broken ground
(ii) Dendritic pattern
- (d) (i) 9680 and 9383
(ii) 9978
- (e) (i) Conical hill
(ii) Ridges
- (f) (i) Due to presence of sand dunes and fairly dense jungle.
- (g) From Sangla to Antroli is North-East and from Sangla to Chekhla is towards North.
- (h) Seasonal rainfall due to presence of sanddunes/ broken ground/water channel in the Balaram and Banas river / seasonal streams.
- (i) 2.4 Km

- | | |
|-----|--|
| (j) | (i) Scattered or Dispersed settlement
(ii) Northern part of the region. |
|-----|--|

Question 2

On the outline map of India provided:

- | | | |
|-----|--|-----|
| (a) | Mark and name <i>Chennai</i> | [1] |
| (b) | Label the <i>river Godavari</i> | [1] |
| (c) | Shade and label the <i>Chota Nagpur Plateau</i> | [1] |
| (d) | Shade and name the <i>Gulf of Kachchh</i> | [1] |
| (e) | Mark and name the <i>Indo-Gangetic Plains</i> | [1] |
| (f) | Shade and label an area with <i>Red Soil</i> | [1] |
| (g) | Mark and name the <i>winds</i> which bring rain to Mumbai in July and August | [1] |
| (h) | Mark and name the <i>Satpura Range</i> | [1] |
| (i) | Mark and name the <i>Jharia Coal Field</i> | [1] |
| (j) | Shade and label the <i>Northern Circar coastal region</i> . | [1] |

Examiners' Comments

- (a) Most candidates marked Chennai either below or away from the coast.
- (b) Most candidates labelled the river Godavari correctly.
- (c) Accuracy in outlining the Chhota Nagpur Plateau posed a challenge.
- (d) Most candidates marked it correctly. A few marked over Gulf of Khambat
- (e) Most candidates shaded over Nepal and Rajasthan.
- (f) Red soil is found in many areas so it was marked correctly.
- (g) Name of the wind was not mentioned correctly.
- (h) A few candidates marked Satpura very close to the coast.
- (i) Most candidates marked Jharia either above or below the correct location.
- (j) Many candidates shaded either too wide or too long.

Suggestions for teachers

- Students must practice marking of cities mentioned in the syllabus till they are perfect.
- Location and identification of rivers is essential for all map work.
- Use of Atlas brings about an accurate outline of Chota Nagpur Plateau on the blackboard.
- Clarify the location of Gulf of Kachchh and Gulf of Khambat on the map.
- Continuous practice of physical divisions of India is needed on sample maps.
- Teach students to shade important areas of each type of soil on the map.
- Teach students to label the arrows correctly.
- Practise marking of features accurately.
- Set map exercises for students after completing each chapter and ensure its correction.
- Teach students the end limits of each coast by marking them on the blackboard.

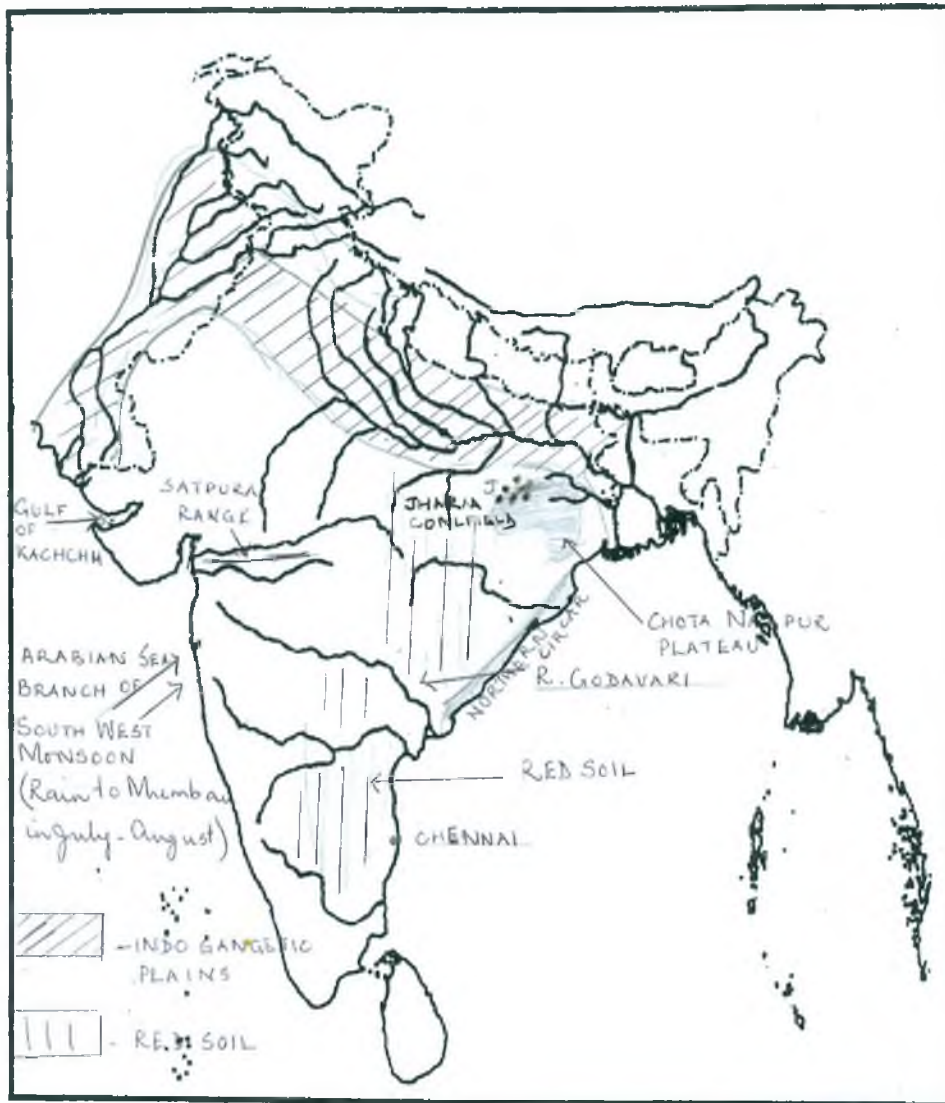
MARKING SCHEME

Question 2.

NameIndex No.

(This map, if used, must be fastened with all other answers)

Map of India for Question 2.



Question 3

- (a) Name *two* types of cyclonic systems that affect India and two areas that receive rainfall from these systems. [2]
- (b) Give *two* important characteristics of the South West Monsoon rainfall. [2]
- (c) Give reasons for the following:
- (i) When the Malabar coast is receiving heavy rainfall in July, the Tamil Nadu coast is comparatively dry.
- (ii) The Northern Plains of India have a Continental type of climate.
- (iii) Central Maharashtra receives little rainfall. [3]
- (d) Study the climatic data given below and answer the questions that follow:

Month	Jan	Feb	Mar	Apr	Ma y	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Temperatu re °C	23.1	24.8	26.5	29.3	32	32.8	33.1	32.1	30.5	29.3	28.7	26.1
Rainfall cm	15.3	10.1	0.3	0.1	1.3	4.5	6.1	10.2	10.5	20.1	16.8	19.0

- (i) Calculate the annual rainfall experienced by the station.
- (ii) Suggest a name of this station, giving a reason for your answer.
- (iii) Name the season during which the rainfall is heaviest. [3]

Examiners' Comments

- (a) Most candidates were unsure about the types of cyclonic systems. Some candidates mentioned S.W. and N.E. monsoon.
- (b) Most candidates answered the question correctly. A few however were unable to justify their answers.
- (c) (i) Candidates explained the answer correctly but missed key words - windward, leeward and rain shadow area.
- (ii) Most candidates answered the question correctly.
- (iii) Candidates offered reasonable explanations but missed writing key terms.

Suggestions for teachers

- While teaching the chapter on 'climate' revise the tropical and temperate cyclones in India and areas affected by them.
- Thorough revision of topics must be conducted.
- Teach the meaning of windward, leeward and rain shadow with the help of a map on the blackboard.
Explain the difference between continental and maritime climate citing examples of cities.
Teach the distribution of rainfall explaining the factors responsible using key terms.

- (d) (i) Most candidates answered the question correctly.
 (ii) Candidates were unable to identify the station and wrote Tamil Nadu instead of Chennai.
 (iii) Some candidates wrote the months i.e. October and November instead of seasons.

Suggestions for teachers

- Students must be constantly reminded to write in units.
 Insist on writing the name of the city rather than state when a station is asked.
 Students should be instructed to read the questions carefully before answering.

MARKING SCHEME

Question 3.

- (a) - Tropical cyclones in Tamil Nadu coastal regions
 - Western disturbances in North-West India (J.K, Punjab and H.P)
- (b) - Uncertain and Unreliable rainfall
 - Uneven distribution of rainfall
 - The amount of rainfall received depends on the relief of the region
 - The bulk of the rainfall is received during this season in almost every part of India except Tamil Nadu.(any two points)
- (c) (i) The south-west monsoons cause heavy rainfall on the Malabar coast after striking against the Western Ghat but Tamil Nadu receive less rainfall because it is situated in the rain shadow area.
 (ii) Being away from the influence of sea they have very hot summers and very cold winters.
 (iii) Central Maharashtra has very little rainfall as it lies in the rain-shadow area of the Western Ghats.
- (d) (i) 114.3 cm
 (ii) Chennai / Vishakhapatnam
 (iii) Winter (December – February) 44.4 cm

Question 4

- (a) Differentiate between *Transported soil* and *In Situ soil*, quoting a suitable example for each. [3]
- (b) State *two* differences between *Bhangar* and *Khadar*. [2]
- (c) Name the process by which *Laterite soil* is formed. Mention *one* disadvantage of this soil. [2]
- (d) With reference to *Red soils* in India, answer the following questions:
- (i) Name *two* states where it is found.
- (ii) State *two* advantages of this type of soil.
- (iii) Mention *two* important crops grown in this soil. [3]

Examiners' Comments

- (a) Most candidates answered this question correctly. A few candidates appeared confused and wrote incorrect examples.
- (b) This question was answered correctly by most candidates.
- (c) Most candidates correctly answered the question.
- (d) (i) Answered correctly by most candidates.
(ii) A few candidates mentioned the disadvantages instead.
(iii) Most candidates answered the question correctly.

Suggestions for teachers

- Insist on students reading the question carefully to enable a better understanding of the concerned topic and hence avoid any form of confusion.
- Extensive revision must be carried out in class.
- Explain topics in detail followed by class and home assignments.
- Students should be asked to revise topics regularly and consistently. List advantages and disadvantages of each type of soil and revise the same. Explain the important crops grown in each soil with the help of charts.

MARKING SCHEME

Question 4.

- (a) Soils, which have been carried over distances or transported by rivers, winds and then deposited - Alluvial soil
In Situ soils are found in their place of origin – Black soil/Red soil/Laterite soil.
- (b) Bhangar:
 - Older soil found about 30m above sea level in river terraces
 - Light grey in colour and non-porous
 - Less fertile soil.Khadar:
 - New soil found in the lower beds in the plains near the river.
 - Loamy, porous soil.
 - More fertile. (Any two points)
- (c) Laterite soil is a leached soil and formed due to weathering of rocks and due to high temperature and heavy rainfall with alternating wet and dry periods.
- (d) (i) Two states where Red soils are found are Tamil Nadu and Karnataka.
(ii) Two advantages of red soil are:
 - These soils are productive when fertilizers and irrigation are used.
 - They are porous and friable in nature.(iii) Wheat, Rice, Millets, Cotton, Sugarcane Pulses.

Question 5

- (a) Mention *two* main characteristics of Tropical Rain Forests. [2]
- (b) Name the tree, the timber of which could be used for the following:

- (i) A soft and white timber used for making toys and match boxes.
 - (ii) A hard durable timber used for ship building and furniture making.
 - (iii) A sweet smelling timber which yields an oil, used for making handicrafts. [3]
- (c) (i) Name *one* region in India for each of the following:
- (1) Tidal forests.
 - (2) Thorn and Scrub.
- (ii) Explain why Thorn and Scrub forests are found in the above mentioned region. [3]
- (d) Briefly explain *two* reasons for forests being an important natural resource. [2]

Examiners' Comments

- (a) Most candidates appeared confused between Tropical Rain Forests and Deciduous Forests. A few candidates wrote the temperature and rainfall requirements as its characteristics.
- (b) (i) Most candidates answered the question correctly.
- (ii) Most candidates answered the question correctly with a few candidates writing incorrect examples.
- (iii) Most candidates answered the question correctly.
- (c) Many candidates mentioned states instead of stating regions.
- (d) Most candidates answered the question correctly.

Suggestions for teachers

- Ensure students know alternative terms and are able to clarify the use of terms such as ‘characteristics’ being different from “requirements”
- Active participation during classroom discussions must be given due importance,
- Tidal forests are found on the delta only, should be clarified.
- Guide students to answer correctly by making correct usage of sentences.

MARKING SCHEME

Question 5.

- (a) Two main characteristic of Tropical rainforests are:
 - (i) There is dense growth of trees of varying heights.
 - (ii) Sunlight does not penetrate through and floor of forest is dark
 - (iii) Forests occur in mixed stands
 - (iv) Forests are evergreen i.e. species shed leaves at different times.
 - (v) They provide hardwood. (Any two)
- (b) (i) Semul, Chir pine, Silver fir
- (ii) Teak
- (iii) Sandal wood
- (c) (i) 1. Tidal forests found along the coastal areas of West Bengal and Andaman and Nicobar Islands.
- 2. Thorn and scrub are found in the northwestern parts of the county in the semi-arid areas of Gujarat, Rajasthan and Madhya Pradesh.
- (ii) These forests are confined to regions with less than 50 cm rainfall.

- (d) Forests are considered a very important natural resource as:
- They improve the fertility of the soil and prevent soil erosion.
 - They provide timber for house building, ship building and furniture.
 - They supply wood and charcoal for fuel in homes and in industries.
 - They provide wood pulp for the paper and rayon industries.
 - They provide an environment for wildlife.

(Any two points)

Question 6

- (a) Name *two* states in which tube wells are extensively used. Give a reason to explain its importance as a source of irrigation. [2]
- (b) Give *two* main reasons why water scarcity occurs in India. [2]
- (c) (i) Name *two* states where perennial canals are widely used.
(ii) Briefly explain *two* reasons for perennial canals being a popular form of irrigation in the named states. [3]
- (d) (i) Name *two* methods of water harvesting in India.
(ii) Mention any *two* objectives of rain water harvesting. [3]

Examiners' Comments

- (a) Most candidates answered the first part of the question correctly however reasons stated were unsatisfactory.
- (b) This part of the question was answered correctly however a few justified the need for water resources.
- (c) (i) Most candidates answered the question correctly.
(ii) This part of the question did not attract the desired answers and most candidates wrote vague and incorrect answers.
- (d) (i) Most candidates answered the question correctly
(ii) Most candidates answered the question correctly.

Suggestions for teachers

- Questions that demand reasoning must be discussed in class to reinforce learning techniques.
- Correlate climate to irrigation and issues of water crisis to clarify concerned topics
- Educate students on sources of irrigation being more popular and their implications as a major source of water resources.
- Train students on how answers must be written according to questions posed.

MARKING SCHEME

Question 6.

- (a) Tube wells are extensively used in U.P, Bihar, Punjab and Haryana.
They are perennial in nature. Suitable for small holdings. (Any two states)
- (b) Water scarcity is due to the rapid growth of population, growth of Industry and urbanization. (Any two points)
- (c) (i) U.P, Punjab, Haryana and Rajasthan are the important states used the perennial canals. (Any two states)
- (ii) Perennial canals are popular in these states due to presence of many perennial rivers, low level relief and deep fertile soils. (Any two points)
- (d) (i) Two methods of water harvesting are roof-water harvesting, construction of tanks, ponds and check-dams.
- (ii) Two objectives of rainwater harvesting are:
- to meet the increasing demand for water,
 - to raise the ground water table,
 - reduce soil erosion. (Any one point)

Question 7

- (a) Name the ore of aluminium. Describe *two* main uses of aluminium. [2]
- (b) Name any *two* industrial products for which limestone is used as a source of raw material. [2]
- (c) (i) Name *two* industries that use a high quantity of coal.
- (ii) Name *one* important area that has large coal deposits in the states of Jharkhand and West Bengal. [3]
- (d) (i) Which state is the largest producer of mineral oil?
- (ii) Name *two* coastal and *two* inland oil-refineries in India. [3]

Examiners' Comments

- (a) Most candidates answered the question correctly.
- (b) The question was answered correctly by most candidates.
- (c) (i) Most candidates named the industries however only a few wrote correct answers.
- (ii) Most candidates answered the question correctly.
- (d) (i) Most candidates wrote correct answers.
- (ii) Many candidates were confused on naming the correct oil fields and wrote Mumbai High in place of Mumbai.

Suggestions for teachers

- Explain the topics using a tabular presentation/ chart showing list of minerals.
- Categorise industrial and domestic use of minerals.
- Thorough revision and active class room discussions are required to reinforce facts.
- Important & significant topics need constant revision supported by citing suitable examples. Clarify differences between coastal and inland / oil fields and oil refineries, etc.

MARKING SCHEME

Question 7.

- (a) (i) Bauxite is the ore of aluminium.
(ii) It is mainly used in the making of aeroplanes and electric wires.
- (b) It is used in the chemicals, Iron and steel, cement, glass and fertilizers. (Any two industries)
- (c) (i) Iron and steel industries and the Railways use the maximum amount of coal.
(ii) Jharia in Jharkhand and Ranigunj in West Bengal.
- (d) (i) Maharashtra is the largest producer of mineral oil.
(ii) Mumbai and Vishakhapatnam are situated in the coastal region and Mathura and Digboi are situated in the inland region.

Question 8

- (a) Distinguish between *Intensive commercial farming* and *Extensive commercial farming*. [2]
- (b) With reference to rice cultivation, answer the following:
(i) Name *two* leading states in the production of rice.
(ii) Give *two* advantages of growing rice in nurseries. [2]
- (c) (i) Name two states where coffee plantations are found.
(ii) What conditions of soil and climate are favourable for the cultivation of coffee? [3]
- (d) Explain in brief the following:
(i) Retting.
(ii) Ginning.
(iii) Broadcasting. [3]

Examiners' Comments

- (a) A few candidates were confused and listed the difference between subsistence and commercial farming.
- (b) (i) Most candidates answered the question correctly.
(ii) Many candidates wrote characteristics rather than advantages as posed by the question.
- (c) (i) Most candidates answered the question correctly.
(ii) Errors were committed in concepts relating to temperature and rainfall.
(iii) Most candidates answered this question correctly.
- (d) (i) The question was answered correctly by most candidates.
(ii) Most candidates answered the question correctly.

Suggestions for teachers

- Explain concepts clearly with examples and clarify the difference between intensive subsistence and intensive commercial farming.
- Revision of important states for each crop must be conducted regularly. Students must be made aware of a nursery and its functioning.
- Guide students to read questions carefully to avoid missing subparts of the question.
- Important terms must be listed and defined with adequate revision.

- (iii) The concepts on Broadcasting was not comprehended by many candidates who wrote incorrect answers.

MARKING SCHEME

Question 8.

- (a) Intensive Commercial Farming:
- Size of is small due to fragmentation.
 - Maximum yield is produced with the help of irrigation, fertilizers and use of hybrid seeds.
 - Maximum capital, labour and skill is involved for making a small area productive.
- Extensive Commercial Farming:
- It is capital-intensive farming
 - Single-crop cultivation predominates, like wheat, corn or barley.
 - This kind of farming is practiced mainly in sparsely populated areas where ample land is available for cultivation. (Any two points)
- (b) (i) West Bengal and Tamil Nadu are the leading producer of rice in India.
(ii) This facilitates weeding and fertilizing fields.
This method gives more yields.
- (c) (i) The two states – Karnataka, Kerala, Tamil Nadu.
(ii) Two favourable conditions are:
- Its temperature range between 15 °C and 28 °C
 - Rainfall requirements range from 125 cm and 250 cm well distributed through the year.
 - Volcanic soil/Red/ Laterite soil/ rich friable loams is suitable.
- (d) Retting:- It is a microbiological process. It loosens the outer bark and facilitates of the (jute) fibre from the stalk.
Ginning:- It is an important step in the processing cotton.
It is the separation of seeds and fibre from the raw material.
Broadcasting:- It is scattering of seeds by hand over the soil.

Question 9

- (a) Name any *two* large sugar producing states, one each in north and south India. [2]
- (b) Name an agro-based industry based in the following industrial centres:
- (i) Ahmedabad
(ii) Mysore. [2]
- (c) State *three* favourable conditions responsible for the growth of the jute industry in West Bengal. [3]
- (d) Give geographical reasons for the following:
- (i) The woollen industry is a localized industry in India.
(ii) It is necessary to crush sugar cane within 24 hours of harvesting.
(iii) Sericulture flourished in Karnataka. [3]

Examiners' Comments

- (a) Most candidates answered the question correctly.
- (b) (i) The question was answered correctly by most candidates.
(ii) A few candidates wrote incorrect examples.
- (c) Candidates had a wide choice yet a few made errors by listing requirements for jute cultivation instead of jute industry.
- (d) (i) Many candidates failed to comprehend the term 'Localized'.
(ii) This part of the question was answered correctly.
(iii) Most candidates wrote answers that were general in nature like suitable climate, availability of water, etc.

Suggestions for teachers

- Careful analysis of questions should be encouraged.
- Topics involving industry should be explained citing reasons for the centralization of any industry in a specific region with the help of a map.
- Ensure students have knowledge about concepts of requirements for crops and for industry are different.
- Simple language may be adopted to facilitate the teaching and learning process.
- Questions on reasoning must be given due importance.
- Advise students on writing specific answers.

MARKING SCHEME

Question 9.

- (a) Two largest sugar producing states in North India are Uttar Pradesh and Bihar. Maharashtra and Andhra Pradesh are in South India.
- (b) (i) Ahmedabad-Cotton Textiles
(ii) Mysore- Silk industry.
- (c) The availability of raw material from the Ganga, Brahmaputra delta, HEP as well as thermal power from DVC and Cheap labour from the densely populated region in W.B and Bihar.
- (d) (i) The woolen textile industry is localized in North India due to its cold climate. India has a tropical monsoon climate. The demand is also seasonal.
(ii) It is necessary to crush sugar cane within 24 hours of harvesting so that the juice does not dry up.
(iii) Sericulture flourished in Karnataka due to best quality Mulberry grows very well here/ Favourable climate enables rearing silk worms all year.

Question 10

- (a) (i) What is the significance of the Electronics Industry in recent times?
(ii) Name *two* cities that have leading Software Companies. [2]
- (b) Name the steel plants that were set up with Russian collaboration. [2]
- (c) Explain *three* reasons as to why there is a large concentration of iron and steel plants in the Chhota Nagpur Region. [3]

(d) What industrial product are the following centres noted for:

- (i) Gurgaon
- (ii) Perambur
- (iii) Chittaranjan

[3]

Examiners' Comments

- (a) (i) Most candidates answered the question correctly.
(ii) Most candidates stated correct examples with only a few writing incorrectly.
- (b) Most candidates responded effectively to the question and wrote correct examples.
- (c) Vague points like availability of labour, minerals, transport, etc. was written without mentioning the sources of specific areas and their availability.
- (d) (i),(ii)&(iii) Many candidates wrote incorrect answers.

Suggestions for teachers

- Encourage students by conducting quiz like competitions in class in order to retain and remember centre wise lists of various industries and their products manufactured.
- Active classroom discussions on concerned topics.
- Insist on mentioning specific areas and sources of available facilities.
- Ensure students are given an industry and state wise list of various products mentioned in the existing syllabus.

MARKING SCHEME

Question 10.

- (a) (i) The electronic industry is important today, because its computers which are necessary in almost all fields/ they help in speedy actions in the field of communications.
(ii) Bengaluru and Hyderabad.
- (b) The Bhilai Plant and the Bokaro plant.
- (c) Large concentration of the iron and steel industry in the Chota Nagpur region are:
 - Iron ore is easily available from Singhbhum /Mayurbhanj/ Keonjhar.
 - Coal as a cheap source of energy is obtained from Jharia /Raniganj.
 - Labour force is recruited from the densely populated States of Bihar, U.P. and West Bengal.
 - This regions is well connected by Railway services with the other region for moving the raw materials and finished products.
- (d) (i) Gurgaon- Maruti car factory
(ii) Perambur-Integral Coach Factory(ICF)
(iii) Chittaranjan-Electric Locomotive Works.

Question 11

- (a) Give *one* disadvantage of air transport. Why is it still a popular means of transportation in India? [2]
- (b) (i) Give *two* reasons why peninsular rivers are not ideal for navigation.
(ii) Name a port on the east coast which is often hit by cyclones during the months of October and November. [3]
- (c) (i) State the main objective of the treatment of gaseous waste. [1]
(ii) Name two common diseases caused as a result of gaseous pollution. [1]
- (d) What was the cause of the following?
(i) The Bhopal Tragedy.
(ii) The Minamata Disease.
(iii) The Chernobyl Disaster. [3]

Examiners' Comments

- (a) Majority of candidates answered the question correctly.
- (b) (i) Answers written were correct however, a few committed errors in expression.
(ii) Most candidates wrote correct answers.
- (c) (i) Most candidates answered the question correctly.
(ii) Some candidates wrote only 'Cancer' rather than lung cancer.
- (d) (i) A few candidates wrote carbon monoxide.
(ii) A few wrote 'water contamination' without specifying the cause.
(iii) A few candidates merely wrote 'harmful gas'.

Suggestions for teachers

- Repeated questioning can help clear doubts and clarify concepts.
- Students should be told the main characteristics of the rivers of North and South India. The topic on 'climate' should be taught thoroughly to avoid mistakes.
- Waste management is the need of the hour hence this chapter needs to be dealt with thoroughly with extensive revision.
- Frequent and varied questioning with more visuals can be useful in memorising facts.

MARKING SCHEME

Question 11.

- (a) - It is the costliest form of transport / It is not economical for short distance service.
- It provides comfort in travel/It is the quickest means of transport. That is why still it is the popular means of transport in India.
- (b) (i) Peninsular rivers are not ideal for navigation for the following reasons:
- Rivers are seasonal/non-perennial,
- They are unsuitable as they are swift flowing.
(ii) Chennai.
- (c) (i) The main objective is to drain polluted air of harmful particles and to maintain clean air as more and more people are suffering from respiratory diseases.

- | | |
|-----|---|
| (d) | (ii) Lung cancer, respiratory diseases like bronchial asthma. |
| | (i) Leakage of deadly Methyl Isocyanate from Union Carbide Factory. |
| | (ii) Dumping of mercury in the ocean and subsequent poisoning. |
| | (iii) Nuclear accident which lead to leakage of radioactive wastes. |

Topics/Concepts found Difficult/Confusing

- Relief features in survey map.
- Coastal and Inland refineries.
- Intensive subsistence/Intensive commercial farming.
- Naming stations with the help of the climatic table.
- Reasons for localisation of woollen industry.
- Hard durable timber used for ship building.
- Advantage of growing rise in nurseries.
- Causes of the Bhopal tragedy and Chernobyl disaster.
- Industries that use high quantity of coal.
- Ports on the east coast hit by cyclones.

Suggestions for students

- Revise the survey map and solve sample questions/test papers.
- Avoid selective study.
- Prepare the chapter on 'Climate' with the help of a map.
- Solve previous board paper questions followed by active discussion with concerned subject teachers.
- Memorize the centres for industry, state/temperature for crops, state for minerals, soil, etc., through tabular presentations.
- After answering it is advisable to revise.
- Better practice of application/reasoning questions is needed.
- Read each question very carefully before answering.
- Develop the habit of regular study.

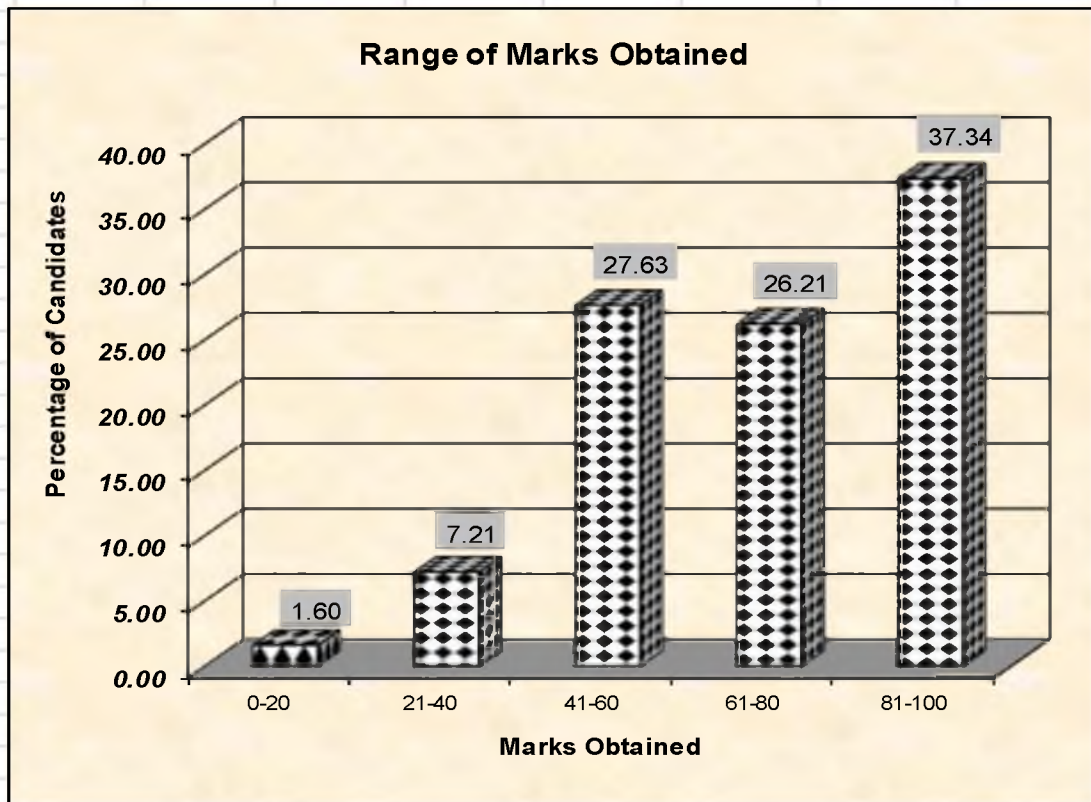
MATHEMATICS

STATISTICS AT A GLANCE

Total Number of students who took the examination	136056
Highest Marks Obtained	100
Lowest Marks Obtained	7
Mean Marks Obtained	70.12

Percentage of Candidates according to marks obtained

Details	Mark Range				
	0-20	21-40	41-60	61-80	81-100
Number of Candidates	2180	9813	37598	35662	50803
Percentage of Candidates	1.60	7.21	27.63	26.21	37.34
Cumulative Number	2180	11993	49591	85253	136056
Cumulative Percentage	1.60	8.81	36.45	62.66	100.00



MATHEMATICS

ANALYSIS OF PERFORMANCE

Question 1

(a) Given $A = \begin{bmatrix} 2 & -6 \\ 2 & 0 \end{bmatrix}$, $B = \begin{bmatrix} -3 & 2 \\ 4 & 0 \end{bmatrix}$, $C = \begin{bmatrix} 4 & 0 \\ 0 & 2 \end{bmatrix}$

Find the matrix X such that $A + 2X = 2B + C$. [3]

(b) At what rate % p.a. will a sum of ₹ 4000 yield ₹ 1324 as compound interest in 3 years? [3]

(c) The median of the following observations 11, 12, 14, $(x-2)$, $(x+4)$, $(x+9)$, 32, 38, 47 arranged in ascending order is 24. Find the value of x and hence find the mean. [4]

Examiners' Comments

- (a) Candidates committed errors in the addition of two matrices and made mistakes in finding $-A$ (i.e. negative of a matrix). Concept of change of sign of each element of a matrix to find negative of a matrix was unclear. Division by 2 to get X from $2X$ was missing, so many wrote incorrect answers.
- (b) Most candidates answered the question correctly. Some candidates attempted the sum directly without showing steps hence they lost marks. Some candidates took the amount equal to ₹ 1324 instead of ₹ 5324. Some failed to express both sides in the correct cube from e.g. $1331/1000 = (11/10)^3$.
- (c) Most candidates answered correctly. However a few failed to identify the difference between mean and median and also the median position. Failing to equate $x + 4 = 24$ the value of x was wrong hence the value of mean was incorrect too.

Suggestions for teachers

- Sufficient dealing of operation of negative integers is necessary e.g. $-6 + 4 - 2 = -4$
- $$x = \frac{1}{2} \begin{bmatrix} -4 & 10 \\ 6 & 2 \end{bmatrix} = \begin{bmatrix} -2 & 5 \\ 3 & 1 \end{bmatrix}$$
- Emphasize on reading the question carefully, analyze and then write the given data. Finally they need to write the formula followed by the substitution. $5324 = 4000 (1 + r/100)^3$.
 - The concept of mean, median and mode for all distribution and methods of finding them must be made clear.
 - Students must be advised on the meaning of the word 'hence' in a particular question. It implies that the second result is a follow up to the first. So an independent working is incomplete that will lead to loss of marks.

MARKING SCHEME

Question 1

$$\begin{aligned} A + 2X &= 2B + C \\ 2X &= 2B + C - A \\ 2X &= 2 \begin{bmatrix} -3 & 2 \\ 4 & 0 \end{bmatrix} + \begin{bmatrix} 4 & 0 \\ 0 & 2 \end{bmatrix} - \begin{bmatrix} 2 & -6 \\ 2 & 0 \end{bmatrix} \end{aligned}$$

$$\begin{aligned}
 &= \begin{bmatrix} -6 & 4 \\ 8 & 0 \end{bmatrix} + \begin{bmatrix} 4 & 0 \\ 0 & 2 \end{bmatrix} + \begin{bmatrix} -2 & -6 \\ -2 & 0 \end{bmatrix} \\
 2X &= \begin{bmatrix} -6+4-2 & 4+0+6 \\ 8+0-2 & 0+2-0 \end{bmatrix} = \begin{bmatrix} -4 & 10 \\ 6 & 2 \end{bmatrix} \\
 \therefore X &= \begin{bmatrix} -2 & 5 \\ 3 & 1 \end{bmatrix}
 \end{aligned}$$

(b) $P = ₹ 4000$
 $CI = ₹ 1324$
 $\therefore A = ₹ 5324$

$$A = P \left(1 + \frac{r}{100}\right)^n$$

$$5324 = 4000 \left(1 + \frac{r}{100}\right)^3$$

$$\frac{5324}{4000} = \left(\frac{100+r}{100}\right)^3$$

$$\frac{1331}{1000} = \left(\frac{11}{10}\right)^3 = \left(\frac{100+r}{110}\right)^3$$

$$\therefore \left(\frac{100+r}{110}\right) = \frac{11}{10}$$

$$100 + r = 110$$

$$r = 10\% \quad A1$$

(c) 11, 12, 14, (x-2), (x+4), (x+9), 32, 38, 47

Hence $n = 9$

$$\begin{aligned}
 \text{Median} &= \frac{n+1}{2} = \frac{9+1}{2} = 5^{\text{th}} \text{ term} \\
 &= x+4
 \end{aligned}$$

Given median = 24

ie $x+4 = 24$

$$x = \underline{20}$$

11,12,14,18,24,29,32,38,47

Substituting $x = 20$

sum of all the numbers = 225

$$\therefore \text{mean} = \frac{225}{9} = 25$$

Question 2

(a) What number must be added to each of the numbers 6, 15, 20 and 43 to make them proportional? [3]

(b) If $(x-2)$ is a factor of the expression $2x^3 + ax^2 + bx - 14$ and when the expression is divided by $(x-3)$, it leaves a remainder 52, find the values of a and b . [3]

(c) Draw a histogram from the following frequency distribution and find the mode from the graph:

Class	0-5	5-10	10-15	15-20	20-25	25-30
Frequency	2	5	18	14	8	5

[4]

Examiners' Comments

- (a) The initial understanding of proportionality was clear to most candidates and hence wrote

$$\frac{6+x}{15+x} = \frac{20+x}{43+x} \quad \text{Or } (6+x)(43+x) = (20+x)(15+x)$$

The errors were mostly in multiplication or in simplification.

- (b) Most candidates committed errors in the first step of application of Remainder and Factor Theorem by writing incorrect simultaneous equations in 'a' and 'b'
- (c) Most candidates answered the question correctly however a few errors observed were:
- Incorrect choice of axis.
 - Histogram drawn with cumulative frequency instead of frequency
 - Failure to draw the two intersecting lines and vertical line to identify mode.

Suggestions for teachers

- Basic concepts of remainder and factor must be taught with clarity so calculation errors are minimized.
- These basic but major errors must be highlighted to enable students avoid committing errors in all forms of examination. They must be taught on how to choose the x-axis and y-axis. Concepts of Histogram as well as determination of mode from it should be clearly explained and students should be given additional practice.

MARKING SCHEME

Question 2

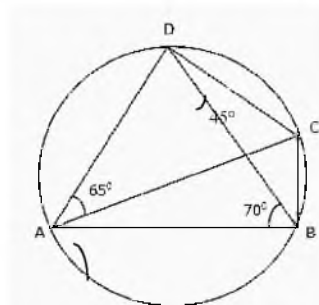
Q.2 (a)	<p>Let x be the number</p> $\frac{6+x}{15+x} = \frac{20+x}{43+x}$ $(6+x)(43+x) = (20+x)(15+x)$ $258+49x+x^2 = 300+35x+x^2$ $14x = 42$ $x = \underline{\underline{3}}$ <p>The required number is <u>3</u></p>
(b)	<p>As $x - 2$ is a factor</p> $f(x) = x^3 + ax^2 + bx + 6$ $f(x) = 0$ $2(2)^3 + a(2)^2 + b(2) - 14 = 0$ $16 + 4a + 2b - 14 = 0$ $4a + 2b = -2 \quad \text{OR}$ $2a + b = -1$ $2(3)^3 + a(3)^2 + b(3) - 14 = 52$ $54 + 9a + 3b = 66$ $9a + 3b = 12$ $3a + b = 4$ $2a + b = -1$ <p>(-) (-) (+)</p>

	$a = 5$ $\therefore b = 4 - 3a$ $= 4 - 15 = -11$ $b = -11$ $a = 5, b = -11$
(c)	GRAPH

Question 3

- (a) Without using tables evaluate $3 \cos 80^\circ \cdot \operatorname{Cosec} 10^\circ + 2 \sin 59^\circ \sec 31^\circ$. [3]

- (b) In the given figure, $\angle BAD = 65^\circ$
 $\angle ABD = 70^\circ$, $\angle BDC = 45^\circ$
 (i) Prove that AC is a diameter of the circle.
 (ii) Find $\angle ACB$



[3]

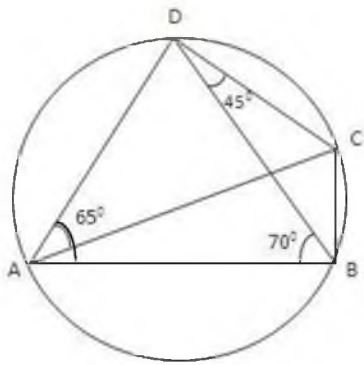
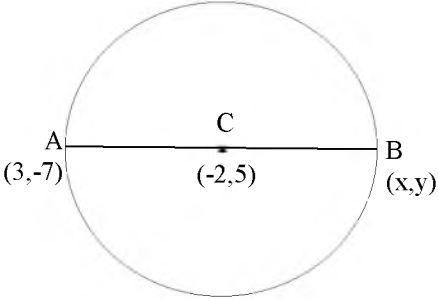
- (c) AB is a diameter of a circle with centre C = (-2,5). If A = (3,-7). Find
 (i) the length of radius AC
 (ii) the coordinates of B. [4]

Examiners' Comments

- (a) Candidates committed errors in writing the complementary function correctly. Some skipped steps and wrote a direct complementary result without showing any working which led to loss of marks.
 (b) Though centre was not given many candidates assumed AC as the diameter and took $\angle ABC = 90^\circ$. Reasons related to the results was missing which led to loss of marks.
 (c) Some candidates were incorrect in applying the distance formula $(\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2})$ correctly. Some did not equate $(3+x)/2$ to -2 or $(-7+y)/2$ to 5 so as to find x and y. The answer too was not written in the coordinate form.

Suggestions for teachers

- Stress on working of a particular sum must always be shown, as skipping of relevant working steps leads to loss of marks. The candidates should have a clear concept of trigonometric functions of angles and the corresponding complementary angles.
- Emphasise on geometry needs to be worked on the basis of given data. Angles must be correctly named and all reasons clearly expressed.
- Incorrect Substitution was due to concept of integers e.g. $+(-2)$ is -2 and not 2. Insist that the coordinate of a point must always be written in the form (a,b).

MARKING SCHEME	
Question 3	
(a)	$3 \cos 80^\circ \cdot \operatorname{cosec} 10^\circ + 2 \sin 59^\circ \sec 31^\circ$ $= 3 \cos 80^\circ \cdot \operatorname{cosec} (90^\circ - 80^\circ) + 2 \sin 59^\circ \sec(90^\circ - 59^\circ)$ $= 3 \cos 80^\circ \cdot \sec 80^\circ + 2 \sin 59^\circ \operatorname{cosec} 59^\circ$ $= 3 \cos 80^\circ \times \frac{1}{\cos 80^\circ} + 2 \sin 59^\circ \times \frac{1}{\sin 59^\circ}$ $= 3 + 2$ $= \underline{\underline{5}}$
(b)	<p>Given $\angle BAD = 65^\circ$ $\angle ABD = 70^\circ$ $\angle BDC = 45^\circ$</p> <p>(i) $\angle ADB = 180^\circ - (65^\circ + 70^\circ) = 45^\circ$ (sum of the angles of triangle) $\angle ADB + \angle BDC = 45^\circ + 45^\circ = 90^\circ$</p> <p>$\therefore AC$ is a diameter (angle in a semicircle is 90°)</p> <p>(ii) $\angle ACB = \angle ADB = 45^\circ$ (angles in the Same segment).</p> 
(c)	<p>A (3, -7) Centre C = (-2,5)</p> $\frac{3+x}{2} = -2 \quad \text{Or} \quad \frac{-7+y}{2} = 5$ $3+x = -4 \quad -7+y = 10$ $x = -7 \quad y = 17$ <p>$\therefore B = (-7, 17)$</p> <p>Length of radius AC = $\sqrt{(3+2)^2 + (-7-5)^2}$ $= \sqrt{25+144}$ $= \sqrt{169} = 13$ units</p> 

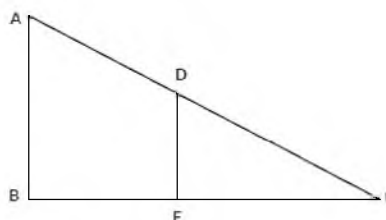
Question 4

- (a) Solve the following equation and calculate the answer correct to two decimal places:
 $x^2 - 5x - 10 = 0$.

[3]

- (b) In the given figure, AB and DE are perpendicular to BC.

- (i) Prove that $\triangle ABC \sim \triangle DEC$
(ii) If AB = 6cm: DE = 4cm and



AC = 15 cm. Calculate CD.

(iii) Find the ratio of the area of $\triangle ABC$: area of $\triangle DEC$. [3]

(c) Using a graph paper, plot the points A(6, 4) and B(0, 4).

(i) Reflect A and B in the origin to get the images A' and B'.

(ii) Write the co-ordinates of A' and B'.

(iii) State the geometrical name for the figure ABA'B'.

(iv) Find its perimeter. [4]

Examiners' Comments

(a) In most cases substitution in formula was correct but candidates made errors in calculations of square root. Due to rounding off to 2 decimal places at the initial stage the final answer of two decimal places was incorrect.

Candidates solved the square root by division method however use of a four figure log table to find the square root is permissible. Results obtained did not consider the 3 decimal places that would lead to the correct answer.

(b) Proof of similarity was answered correctly by candidates but some made mistakes in writing the corresponding ratios correctly for which answer to CD was incorrect. In the third part many candidates wrote:

$\frac{\text{Area } \triangle ABC}{\text{Area } \triangle DEC} = \frac{36}{16}$. But answers must be written in simplified form, i.e. 9/4 or 9:4.

(c) Various types of errors were committed such as:

(i) A few candidates did not use a graph paper

(ii) Some candidates interchanged the -ve and +ve axes of both x and y

(iii) Few candidates plotted the points incorrectly

(iv) Plotted points (-6,-4) and (0,-4) incorrectly

(v) Incomplete figures or named incorrectly.

(vi) Perimeter was found in a lengthy process by using distance formula instead of using the graph.

Suggestions for teachers

– Explain that the correct calculations to be done to the least 3 decimal places so as to obtain the correct approximated answer. Instruct candidates on how to use 4 figure log tables to find the square root that facilitates the calculation process.

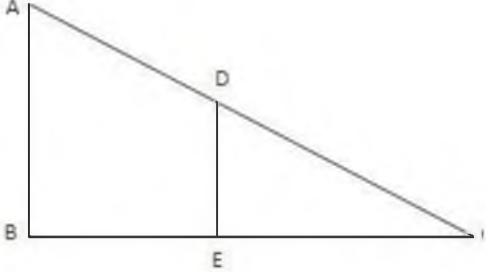
– Regular practice is necessary specially to write the corresponding ratio of sides correctly. Insist on writing all ratios in its lowest term.

– It is very necessary for graphs to be drawn for questions based on graphs. Further all coordinate forms must be written in word form.

Concepts of negative and positive side of both x-axis and y-axis along with plotting points in the graph paper on the basis of the coordinates of the given points must be made very clear.

MARKING SCHEME

Question 4

(a)	<p>Solve $x^2 - 5x - 10 = 0$</p> $x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$ $= \frac{5 \pm \sqrt{25 + 40}}{2 \times 1}$ $= \frac{5 \pm \sqrt{65}}{2}$ $= \frac{5 \pm 8.062}{2}$ $= \frac{13.062}{2} \text{ or } \frac{-3.062}{2}$ $= 6.531 \text{ or } -1.531$ $= 6.53 \text{ or } -1.53$ <p>Answer correct to 2 d.p.</p>
(b)	<p>In $\triangle ABC$ and $\triangle DEC$ $\angle B = \angle E = 90^\circ$ and $\angle C = \angle C$ $\triangle ABC \sim \triangle DEC$ (A.A similarity) $\frac{AB}{DE} = \frac{AC}{DC}$</p> <p>(ii) $\frac{6}{4} = \frac{15}{DC} = \therefore DC = 10 \text{ cm}$</p> <p>(iii) $\frac{\text{area } \triangle ABC}{\text{area } \triangle DEC} = \left(\frac{6}{4}\right)^2 = \left(\frac{3}{2}\right)^2 = \frac{9}{4} = 9:4$</p> 
(c)	<p>$A'(-6, -4)$ $B'(0, -4)$ $AB A'B'$ is a parallelogram B_1 Perimeter = $2(6+10) = 32$ units</p>

Question 5

(a) Solve the following inequation, write the solution set and represent it on the number line:

$$-\frac{x}{3} \leq \frac{x}{2} - 1 \frac{1}{3} < \frac{1}{6}, x \in R$$

[3]

(b) Mr. Britto deposits a certain sum of money each month in a Recurring Deposit Account of a bank. If the rate of interest is of 8% per annum and Mr. Britto gets ₹ 8088 from the bank after 3 years, find the value of his monthly instalment.

[3]

(c) Salman buys 50 shares of face value ₹ 100 available at ₹ 132.

- (i) What is his investment?
(ii) If the dividend is 7.5%, what will be his annual income?
(iii) If he wants to increase his annual income by ₹ 150, how many extra shares should he buy?

[4]

Examiners' Comments

- (a) Errors were in transposition of x terms on one side and constants on the other. Many candidates failed to write the solution in the set form hence they lost marks. There were errors in representation of the solution on the number line. $1\frac{3}{5}$ was not marked on the number line.
- (b) Some candidates took n as 3 instead of $12 \times 3 = 36$. Many lost marks for using ₹ 8088 as interest instead of the matured value. In some cases candidates forgot to divide by 12 so as to convert rate per annum to per month.
- (c) Most candidates answered the question correctly. Some made errors in finding the dividend for taking N.V. as ₹ 32 instead of ₹ 100. Some committed errors in shifting the decimal point of 7.5% and ended up writing ₹ 37.50 instead of ₹ 375.

Suggestions for teachers

- Emphasize on writing of solutions in a set form. If there is a fractional number in the solution set then it must be indicated.
- Students must be advised to read the question carefully and identify the given data. The concept that recurring deposits is a monthly deposit hence is monthly and rate is calculated on a per month basis needs to be made very clear.
- Additional practice sessions of questions on face value, nominal value, market value etc. and hence to apply the formula correctly. Calculation of dividends should be explained thoroughly.

MARKING SCHEME

Question 5

(a)	$\text{If } -\frac{x}{3} \leq \frac{x}{2} - 1\frac{1}{3}$ $-\frac{x}{3} \leq \frac{x-4}{3}$ $\frac{4}{3} \leq \frac{x}{2} + \frac{x}{3}$ $\frac{4}{3} \leq \frac{3x+2x}{6}$ $8 \leq 5x$ $\frac{8}{5} \leq x$ $1\frac{3}{5} \leq x$	correctly transposing all x terms to one side and numbers to the other side.
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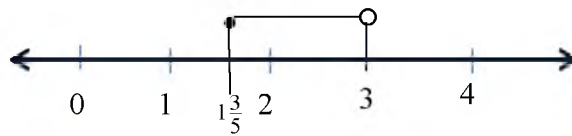
$$\Rightarrow \frac{x}{2} < \frac{1}{6} + \frac{4}{3}$$

$$\Rightarrow \frac{x}{2} < \frac{9}{6}$$

$$\Rightarrow x < \frac{9}{6} \times 2$$

$$\Rightarrow x < 3$$

$$\text{Sol. Set } \{ x : 1\frac{3}{5} \leq x < 3, x \in \mathbb{R} \}$$



(b)

Let the monthly deposit be ₹ x
n = 36 months

$$P = \frac{n(n+1)x}{2} = \frac{36 \times 37 \times x}{2}$$

$$\text{Int} = \frac{36 \times 37 \times x}{2} \times \frac{1}{12} \times \frac{8}{100}$$

$$= \frac{111x}{25}$$

$$\text{Amt} = nx + \text{Int}$$

$$8088 = 36x + \frac{111x}{25}$$

$$\frac{900x + 111x}{25} = 8088$$

$$\frac{1011x}{25} = 8088$$

$$x = \frac{8088 \times 25}{1011}$$

$$x = ₹ 200$$

OR

Let the monthly deposit be ₹100

$$P = \frac{36 \times 37 \times 100}{2}$$

$$\text{Int} = \frac{36 \times 37 \times 100 \times 8}{2 \times 12 \times 100}$$

$$= 444$$

$$\text{Amount} = 3600 + 444$$

$$= 4044$$

$$\text{Amt } x$$

$$4044 \quad 100$$

$$8088 \quad \frac{8088 \times 100}{4044} = 200$$

∴ The monthly deposit = ₹200

(c)

i) Total investment = ₹50 x 132

$$= ₹ 6600$$

ii) The dividend of a share = $\frac{7.5}{100} \times 100 \times 50$

$$50 \text{ shares} = \frac{7.5 \times 100}{100} \times 50$$

$$= ₹ 375$$

iii) ₹ 7.50 can be earned from 1 share

$$\text{No. of extra shares he should buy} = \frac{150}{7.5} = \underline{20 \text{ shares}}$$

Or Extra dividend = $\frac{d}{100} \times \text{extra shares} \times \text{FV}$

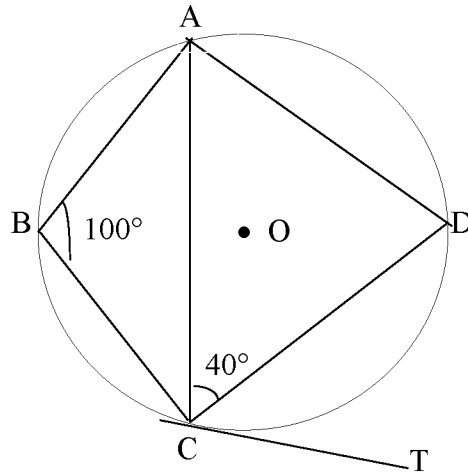
$$150 = \frac{7.5}{100} \times x \times 100$$

$$x = \underline{20 \text{ shares}}$$

Question 6

(a) Show that $\sqrt{\frac{1-\cos A}{1+\cos A}} = \frac{\sin A}{1+\cos A}$. [3]

(b) In the given circle with centre O, $\angle ABC = 100^\circ$, $\angle ACD = 40^\circ$ and CT is a tangent to the circle at C. Find $\angle ADC$ and $\angle DCT$.



[3]

(c) Given below are the entries in a Savings Bank A/c pass book:

Date	Particulars	Withdrawals	Deposit	Balance
Feb 8	B/F	-	-	₹ 8500
Feb 18	To self	₹ 4000	-	-
April 12	By cash	-	₹ 2230	-
June 15	To self	₹ 5000	-	-
July 8	By cash	-	₹ 6000	-

Calculate the interest for six months from February to July at 6 % p.a.

[4]

Examiners' Comments

- (a) Common errors observed were :
- Working with both sides together instead of starting with either LHS or the RHS
 - Squaring of both sides or omitting the square root sign.
 - Some candidates cross multiplied and then went about proving it.
- (b) A few candidates made calculation errors in finding $\angle DCT$. In many cases reasons were not stated to support their answers.
- (c) It is important to show all essential working. Many candidates were unable to show the completion process of the pass book leading to incomplete answers. Candidates made mistakes in finding the minimum qualifying balance. Some took time as 6 months instead of 1 and did not divide the same by 12 so as to have the rate per month instead of per year.

Suggestions for teachers

- Explain the basic rules of an identity and the method of proving it. The identity cannot be changed by squaring or taking the square root. Cross multiplication of terms should be avoided. The rule is to start from one side and prove the other.
- In problems on geometry it is essential to state reasons to score well.
- Explain the meaning of monthly balance and why we divide by 12 to find the interest. Mechanical workings without understanding the logic behind the concepts led to such errors, so concepts must be made clear.

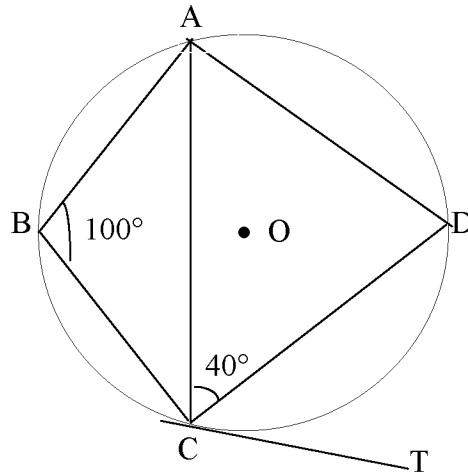
MARKING SCHEME

Question 6

(a) L.H.S $\sqrt{\frac{1-\cos A}{1+\cos A}} = \sqrt{\frac{1-\cos A}{1+\cos A} \times \frac{1+\cos A}{1+\cos A}}$

$$= \sqrt{\frac{1-\cos^2 A}{(1+\cos A)^2}}$$
$$= \sqrt{\frac{\sin^2 A}{(1+\cos A)^2}}$$
$$= \frac{\sin A}{1+\cos A}$$

- (b) $\angle ADC = 180^\circ - \angle ABC = 80^\circ$
 $\angle CAD = 180^\circ - (80^\circ + 40^\circ) = 60^\circ$
 $\angle DCT = \angle CAD = 60^\circ$
- Opp \angle s of cyclic quad are supplementary
sum of the \angle s of a Δ is 180°
alternate segment theorem



(c) Date	Particulars	Withdrawals	Deposit	Balance
Feb 8	B/F	-	-	8500
Feb 18	To self	4000	-	4500
April 12	By cash	-	2230	6730
June 15	To self	5000	-	1730
July 8	By cash	-	6000	7730

Principal for the month February = 4500

Principal for the month March = 4500

Principal for the month April = 4500

Principal for the month May = 6730

Principal for the month June = 1730

Principal for the month July = 7730

Total principal for 1 month = ₹ 29690

$$\text{Interest} = \frac{29690 \times 6}{12 \times 100}$$

$$= ₹ 148.45$$

Question 7

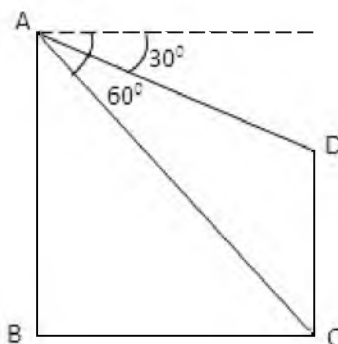
- (a) In ΔABC , $A(3, 5)$, $B(7,8)$ and $C(1,-10)$. Find the equation of the median through A.

[3]

(b) A shopkeeper sells an article at the listed price of ₹ 1500 and the rate of VAT is 12% at each stage of sale. If the shopkeeper pays a VAT of ₹ 36 to the Government, what was the price, inclusive of Tax, at which the shopkeeper purchased the article from the wholesaler? [3]

(c) In the figure given, from the top of a building $AB = 60$ m high, the angles of depression of the top and bottom of a vertical lamp post CD are observed to be 30° and 60° respectively. Find:

- (i) the horizontal distance between AB and CD .
- (ii) the height of the lamp post.



[4]

Examiners' Comments

- (a) Few candidates made incorrect observations on the slope of the median. It was +6 instead of -6. Some used incorrect points in finding the equation of the median.
- (b) Some candidates could not identify M.P. as ₹ 1500. In some cases candidates were unable to calculate the profit of the shopkeeper.
- (c) Most candidates answered the question correctly, However a few instead of using $\tan 60 = \sqrt{3}$, $\tan 30 = 1/\sqrt{3}$ used trigonometric tables which led to long and tedious working.

Suggestions for teachers

- Insist on writing the coordinates of a point in (a, b) form. To find the equation of a line the point (x_1, y_1) is a point on the line and not any point from given data.
- Concepts of VAT needs to be made clear to candidates namely $\text{VAT} = \text{Output Tax} - \text{Input Tax}$.
- Advise students to avoid using trigonometric tables for special angles.

MARKING SCHEME

Question 7

(a)

Mid point $M = \left(\frac{7+1}{2}, \frac{8-10}{2} \right)$
 $= (4, -1)$
 Slope $AM = \frac{5+1}{3-4} = -6$
 Equation of AM
 $y - 5 = -6(x - 3)$
 $y - 5 = -6x + 18$
 $6x + y = 23$

(b)

Out put tax = 12% of ₹1500
 $= ₹ 1500 \times \frac{12}{100}$
 $= ₹ \underline{180}$

Let the price of the article charged by the wholesales be P before tax.

\therefore Input tax = 12%P OR

$= \frac{12P}{100} = \frac{3}{25}P$

VAT = out put Tax – input Tax

$36 = 180 - \frac{3}{25}P$

$\frac{3}{25}P = 180 - 36$

$= \underline{144}$

$P = \frac{144 \times 25}{3}$

$= \underline{₹1200}$

Price inclusive of tax = P + input tax

$= P + \frac{3}{25}P$

$= 1200 + 144$

$= ₹ \underline{1344}$

VAT paid by shopkeeper = 12% of his profit
 $36 = \frac{12}{100}$ of profit
 Profit = $\frac{36 \times 100}{12} = \text{Rs. } 300$
 \therefore CP = SP – Profit
 $= 1500 - 300 = ₹1200$

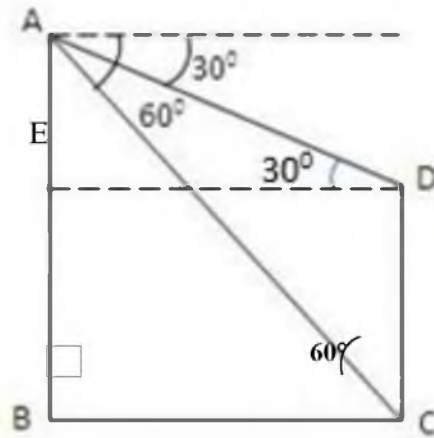
Price inclusive of VAT
 $= 1200 + \frac{12}{100} \times 1200$
 $= 1200 + 144$
 $= ₹ 1344.$

(c)

In the rt-angled triangle ABC

$\tan 60^\circ = \frac{AB}{BC} = \sqrt{3}$

$$\begin{aligned}
 &= \frac{60\text{m}}{BC} \\
 BC = ED &= \frac{60}{\sqrt{3}} \\
 &= \frac{60 \times \sqrt{3}}{\sqrt{3} \times \sqrt{3}} = 20 \times \sqrt{3} \\
 &= 20 \times 1.732\text{m} \\
 &= \underline{34.64\text{ m}}
 \end{aligned}$$



the horizontal distance between AB and CD = 34.64 m

In the right – angled triangle AED

$$\begin{aligned}
 \tan 30^\circ &= \frac{AE}{ED} = \frac{1}{\sqrt{3}} \\
 &= \frac{AE}{20\sqrt{3}\text{m}} \\
 AE &= 20\sqrt{3} \times \frac{1}{\sqrt{3}} \\
 &= \underline{20\text{ m}}
 \end{aligned}$$

\therefore the height of the Lamp post is $60 - 20 = \underline{40\text{ m}}$

Question 8

(a) Find x and y if $\begin{bmatrix} x & 3x \\ y & 4y \end{bmatrix} \begin{bmatrix} 2 \\ 1 \end{bmatrix} = \begin{bmatrix} 5 \\ 12 \end{bmatrix}$. [3]

(b) A solid sphere of radius 15 cm is melted and recast into solid right circular cones of radius 2.5 cm and height 8 cm. Calculate the number of cones recast. [3]

(c) Without solving the following quadratic equation, find the value of 'p' for which the given equation has real and equal roots:

$$x^2 + (p - 3)x + p = 0. \quad [4]$$

Examiners' Comments

- (a) A number of candidates failed to show the necessary working of matrix multiplication but went on to write directly prove $\begin{bmatrix} 5x \\ 6y \end{bmatrix} = \begin{bmatrix} 5 \\ 12 \end{bmatrix}$. This led to loss of marks.
- (b) Some candidates used incorrect formula for cone or sphere. Some made calculation errors mostly in cases where individual volumes have been calculated instead of forming an equation.
- (c) Many candidates substituted correctly for discriminant ($b^2 - 4ac$) but did not equate to zero which is the basic concept of equal roots. Some made mistakes in expanding $(p-3)^2$ or in factorization.

Suggestions for teachers

- Stress on all working related to matrix addition with multiplication being clearly shown.
- Adequate practice of problems related to equating of volumes of different solids is necessary. Simpler methods of dealing with mensuration problems need to be taught that are time saving and effective too.
- Regular practice is necessary on nature of roots of quadratic equation and stress must be laid on steps in solving problems.

MARKING SCHEME

Question 8

(a)

$$\begin{bmatrix} x & 3x \\ y & 4y \end{bmatrix} \begin{bmatrix} 2 \\ 1 \end{bmatrix} = \begin{bmatrix} 5 \\ 12 \end{bmatrix}$$

$$\begin{bmatrix} 2 \times x + 3x \times 1 \\ 2 \times y + 4y \times 1 \end{bmatrix} = \begin{bmatrix} 5 \\ 12 \end{bmatrix}$$

$$\begin{bmatrix} 2x + 3x \\ 2y + 4y \end{bmatrix} = \begin{bmatrix} 5 \\ 12 \end{bmatrix}$$

$$\begin{bmatrix} 5x \\ 6y \end{bmatrix} = \begin{bmatrix} 5 \\ 12 \end{bmatrix}$$

$$5x = 5 \qquad 6y = 12$$

$$\underline{\underline{x = 1}} \quad A_1 \quad \underline{\underline{y = 2}}$$

(b)

Volume of the metal obtained by melting sphere = $\frac{4}{3} \pi r^3$

$$= \frac{4}{3} \times \pi \times 15 \times 15 \times 15 \text{cm}^3$$

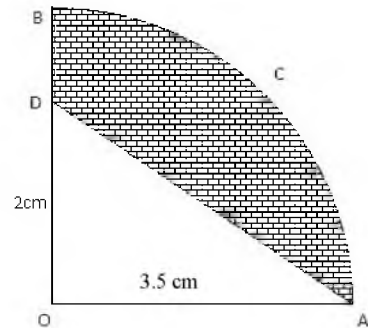
Volume of the right circular cone
of radius 2.5cm and height 8 cm = $\frac{1}{3} \times \pi r^2 h$

$$= \frac{1}{3} \times \pi \times (2.5)^2 \times 8$$

	$\begin{aligned} & \frac{4}{3} \times \pi \times 15 \times 15 \times 15 \\ &= \frac{1}{3} \times \pi \times 2.5 \times 2.5 \times 8 \\ &= \underline{\underline{270}} \end{aligned}$
(c)	$x^2 + (p-3)x + p = 0$ If roots are equal $b^2 - 4ac = 0$, $a = 1$, $b = (p-3)$ and $c = p$ $(p-3)^2 - 4(p) = 0$ Or $(p-3)^2 = 4p$ $p^2 - 6p + 9 = 4p$ $p^2 - 10p + 9 = 0$ $(p-9)(p-1) = 0$ $p = 9$ or 1

Question 9

- (a) In the figure alongside, OAB is a quadrant of a circle. The radius OA = 3.5 cm and OD = 2 cm. Calculate the area of the shaded portion. (Take $\pi = \frac{22}{7}$)



[3]

- (b) A box contains some black balls and 30 white balls. If the probability of drawing a black ball is two-fifths of a white ball, find the number of black balls in the box.

[3]

- (c) Find the mean of the following distribution by step deviation method:

Class interval	20-30	30-40	40-50	50-60	60-70	70-80
Frequency	10	6	8	12	5	9

[4]

Examiners' Comments

- (a) Two major errors committed were:
- Using π as 3.14 instead of $\frac{22}{7}$ as stated in the question.
 - In the process of calculation, initial rounding of results led to incorrect answers.
- (b) Most candidates solved the problem correctly.
- (c) Some candidates used the direct method instead of step deviation method as asked in the question and hence scored poorly. A number of calculation errors were detected.

Suggestions for teachers

- Students must be advised to read the question carefully and use the data given in the question. Further, candidates must be told not to round off values in the initial stage, this leads to errors in the calculation of the final answer.
- Stress must be laid on writing the necessary outcomes, followed by explanation of all aspects on questions based on probability.
- Students must be advised to read the question thoroughly and answer according to the method asked for in the question.

MARKING SCHEME

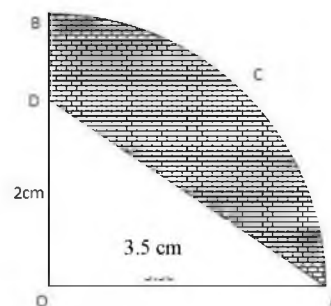
Question 9

(a) Area of the quarter

$$\begin{aligned} \text{circle} &= \frac{\pi r^2}{4} \\ &= \frac{1}{4} \times \frac{22}{7} \times \frac{7}{2} \times \frac{7}{2} \text{ cm}^2 \\ &= \underline{9.625 \text{ cm}^2} \end{aligned}$$

$$\begin{aligned} \text{Area of the } \triangle AOD &= \frac{1}{2} \times OA \times OD \\ &= \frac{1}{2} \times 2 \times 3.5 \\ &= 3.5 \text{ cm}^2 \end{aligned}$$

$$\begin{aligned} \text{Area of the shaded portion} &= 9.625 - 3.5 \\ &= \underline{6.125 \text{ cm}^2} \end{aligned}$$



(b) Let the box contain x black balls
 \therefore Total number of balls in the box = $x + 30$

$$\text{Probability of drawing a black ball} = \frac{x}{x + 30}$$

$$\text{Probability of drawing a white ball} = \frac{30}{x + 30}$$

$$\frac{x}{x + 30} = \frac{2}{5} \times \frac{30}{x + 30}$$

$$x = \underline{12}$$

(c)	Class Interval	$x = \text{Mid}$	$d = \frac{x - A}{c}$	f	fd
	20 – 30	25	-2	10	-20
	30 – 40	35	-1	6	-6
	40 – 50	45 \rightarrow A	0	8	0
	50 – 60	55	1	12	12
	60 – 70	65	2	5	10
	70 – 80	75	3	9	27
					49 – 26

$\sum fd = 23, \sum f = 50, C = 10$

$$\text{Mean} = A + \frac{\sum fd}{\sum f} \times C$$

$$= 45 + \frac{23}{50} \times 10 = 45 + 4.6 = \underline{\underline{49.6}}$$

Question 10

(a) Using a ruler and compasses only:

(i) Construct a triangle ABC with the following data:

AB = 3.5 cm, BC = 6 cm and $\angle ABC = 120^\circ$

(ii) In the same diagram, draw a circle with BC as diameter. Find a point P on the circumference of the circle which is equidistant from AB and BC.

(iii) Measure $\angle BCP$. [4]

(b) The marks obtained by 120 candidates in a test are given below:

Marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
No of candidates	5	9	16	22	26	18	11	6	4	3

Draw an ogive for the given distribution on a graph sheet.

Use suitable scale for ogive to estimate the following:

(i) The median.

(ii) The number of candidates who obtained more than 75% marks in the test.

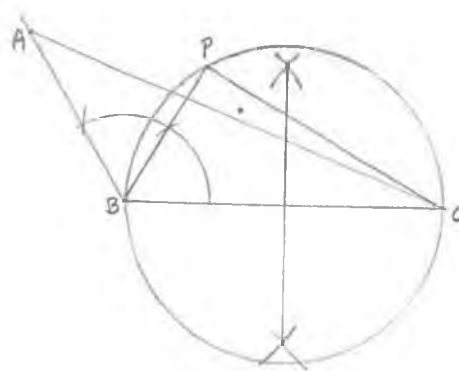
(iii) The number of candidates who did not pass the test if minimum marks required to pass is 40. [6]

Examiners' Comments

- (a) In problems of construction many candidates did not use a ruler and compass to draw $\angle ABC = 120^\circ$. Some took an incorrect length for AB and BC. To draw the semicircle some candidates used a ruler to locate mid-point of BC instead of bisecting BC. Some were not clear about the locus of points equidistant from AB and AC.
- (b) Some candidates made mistakes in computing the c.f. which lead to an incorrect graph. A few plotted the graph with respect to lower boundaries instead of upper boundaries. Some candidates used the given frequency instead of cumulative frequency to draw an Ogive.

Suggestions for teachers

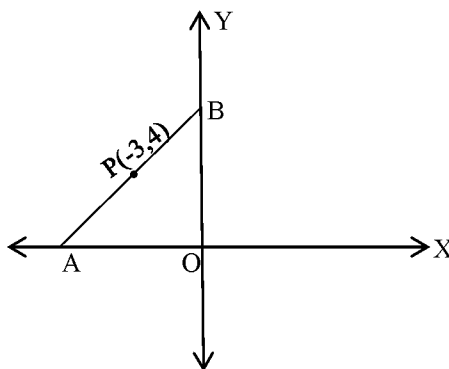
- Focus on basic locus concepts of points equidistant from 2 arms of the angle or equidistant from 2 points. Special attention must be given to the use of ruler and compass for all types of construction.
- Students must be told to recheck the c.f. carefully and to see that the last c.f is same as summation Σf . Ogive is to be drawn with respect to upper boundaries and corresponding cumulative frequency. Ensure students are clear regarding median position $n/2$ and $(n/2 + (n+1)/2)/2$.

MARKING SCHEME																																				
Question 10																																				
(a)	(i) Construction of $\triangle ABC$, $BC = 6$ cm, $\angle B = 120^\circ$, $AB = 3.5$ cm. (ii) Bisecting BC and drawing a circle on diameter BC. (iii) Drawing an angle bisector of $\angle ABC$ and marking P on the circumference. (iv) Join PC and measuring $\angle BCP = 30^\circ$																																			
(b)	<table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="padding: 2px 10px;">Class</th> <th style="padding: 2px 10px;">f</th> <th style="padding: 2px 10px;">Cu.f</th> </tr> </thead> <tbody> <tr><td style="padding: 2px 10px;">0 – 10</td><td style="padding: 2px 10px;">5</td><td style="padding: 2px 10px;">5</td></tr> <tr><td style="padding: 2px 10px;">10 – 20</td><td style="padding: 2px 10px;">9</td><td style="padding: 2px 10px;">14</td></tr> <tr><td style="padding: 2px 10px;">20 – 30</td><td style="padding: 2px 10px;">16</td><td style="padding: 2px 10px;">30</td></tr> <tr><td style="padding: 2px 10px;">30 – 40</td><td style="padding: 2px 10px;">22</td><td style="padding: 2px 10px;">52</td></tr> <tr><td style="padding: 2px 10px;">40 – 50</td><td style="padding: 2px 10px;">26</td><td style="padding: 2px 10px;">78</td></tr> <tr><td style="padding: 2px 10px;">50 – 60</td><td style="padding: 2px 10px;">18</td><td style="padding: 2px 10px;">96</td></tr> <tr><td style="padding: 2px 10px;">60 – 70</td><td style="padding: 2px 10px;">11</td><td style="padding: 2px 10px;">107</td></tr> <tr><td style="padding: 2px 10px;">70 – 80</td><td style="padding: 2px 10px;">6</td><td style="padding: 2px 10px;">113</td></tr> <tr><td style="padding: 2px 10px;">80 – 90</td><td style="padding: 2px 10px;">4</td><td style="padding: 2px 10px;">117</td></tr> <tr><td style="padding: 2px 10px;">90 – 100</td><td style="padding: 2px 10px;">3</td><td style="padding: 2px 10px;">120</td></tr> </tbody> </table>	Class	f	Cu.f	0 – 10	5	5	10 – 20	9	14	20 – 30	16	30	30 – 40	22	52	40 – 50	26	78	50 – 60	18	96	60 – 70	11	107	70 – 80	6	113	80 – 90	4	117	90 – 100	3	120		
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80 – 90	4	117																																		
90 – 100	3	120																																		
	(i) Median = 44 (ii) Number of candidates who obtained more than 75% = $120 - 110 = 10$																																			

(iii) Number of candidates who did not pass the test = 52

Question 11

- (a) In the figure given below, the line segment AB meets X-axis at A and Y-axis at B. The point P(-3,4) on AB divides it in the ratio 2:3. Find the coordinates of A and B.



[3]

- (b) Using the properties of proportion, solve for x, given $\frac{x^4+1}{2x^2} = \frac{17}{8}$. [3]
- (c) A shopkeeper purchases a certain number of books for ₹ 960. If the cost per book was ₹ 8 less, the number of books that could be purchased for ₹ 960 would be 4 more. Write an equation, taking the original cost of each book to be ₹ x, and solve it to find the original cost of the books. [4]

Examiners' Comments

- (a) Concepts of A(a,0) and B(0,b) points on x-axis and y-axis were incorrect. Some candidates made mistakes in the application of the section formula. A number of candidates fared poorly for not writing the final answer in coordinate form as mentioned in the question.
- (b) This question was answered correctly by most candidates however a few did not use componendo and dividendo but cross multiplied directly. Some did not write $x = \pm 2$ and lost marks for accuracy.
- (c) Most candidates misread the question and took a number of books to be x instead of cost of each book as x as given in the question. Some were unable to factorize $x^2 - 8x - 1920 = 0$.

Suggestions for teachers

- Explain the basic concepts of points on x and y axis. Together they need to emphasize on writing cords in (a,b) form.
- Students must be reminded about use of componendo and dividendo in ratio proportion problems. They must be advised to write results with \pm when square root is taken.
- Students must be instructed to read the question carefully and before factorizing the equation they must simplify as far as possible. Students must be taught to identify that $960/(x-8) > 960/x$.

MARKING SCHEME

Question 11

(a)

$$\begin{array}{ccccc} & & 2 & & P & & 3 & & \\ & & \text{---} & & \text{---} & & \text{---} & & \\ A & & & & & & & & A \\ (x,0) & & & & (-3,4) & & & & (0,y) \end{array}$$

The coord of P = $\left(\frac{2x0+3x}{5}, \frac{2y+3 \times 0}{5}\right) = (-3,4)$

$$\frac{0+3x}{5} = -3, \quad \frac{2y+0}{5} = 4$$

$$x = -5, \quad y = 10$$

$\therefore A(-5, 0) (A_1)$ and $B(0,10)$

(b)

$$\frac{x^4+1}{2x^2} = \frac{17}{8}$$

Using componendo and dividend

$$\frac{x^4+1+2x^2}{x^4+1-2x^2} = \frac{17+8}{17-8}$$

$$\frac{(x^2+1)^2}{(x^2-1)^2} = \frac{25}{9}$$

$$\frac{x^2+1}{x^2-1} = \frac{5}{3}$$

$$3x^2+3 = 5x^2-5$$

$$2x^2 = 8$$

$$x^2 = 4$$

$$x = \pm 2$$

(c)

Original cost of each book = x

No. of books bought for ₹ 960 = $\frac{960}{x}$

The cost of each book was ₹ 8 less,
then the cost of a book = $x - 8$

Difference in the number of books bought = $\frac{960}{x-8} - \frac{960}{x} = 4$

$$\frac{240}{x-8} - \frac{240}{x} = 1$$

$$240x - 240(x-8) = x(x-8)$$

$$x^2 - 8x - 1920 = 0$$

$$x^2 - 48x + 40x - 1920 = 0$$

$$(x-48)(x+40) = 0$$

$$x = 48 \text{ or } x = -40 \text{ not valid}$$

	∴ the original cost of the book = ₹ 48
--	--

Topics/Concepts Found Difficult

- Value Added Tax (VAT)
- Trigonometry
- Similarity
- Probability
- Choosing of scale for graph as scale was not provided
- Geometry Locus Construction
- Rounding off final result
- Step deviation method of calculation of mean
- Coordinate geometry , Section formula and points and x and y axis
- Quadratic equation problem

Suggestions For Candidates

- Reading time must be utilized to make the right choice of questions and to be thorough with the given data
- Adequate practice must be done on rounding off digits
- Use graph paper for question based on graphs
- Use of log table to find square root of numbers
- Ensure all necessary steps of workings are clearly shown while solving problems.
- Working for matrix multiplication is essential
- Adopt methods where calculations are minimal to obtain final answers.

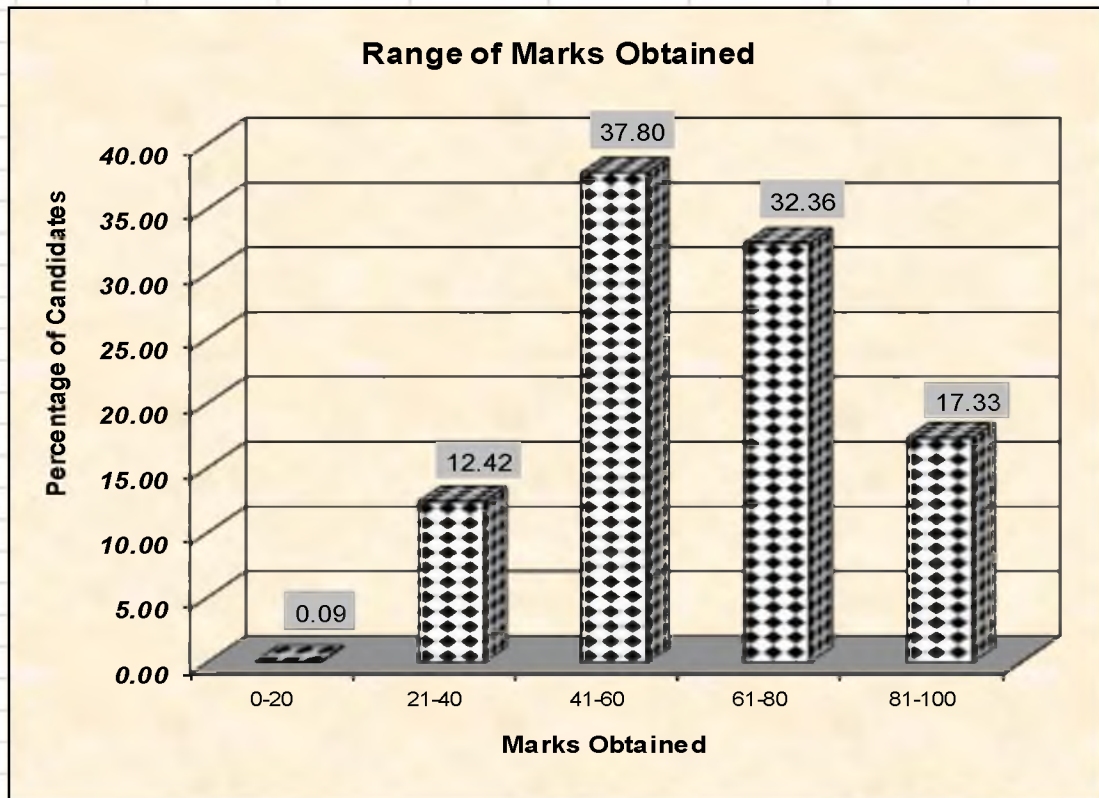
SCIENCE

STATISTICS AT A GLANCE

Total Number of students who took the examination	126,375
Highest Marks Obtained	100
Lowest Marks Obtained	16
Mean Marks Obtained	62.05

Percentage of Candidates according to marks obtained

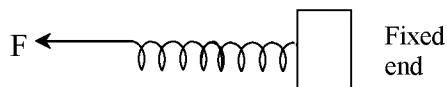
Details	Mark Range				
	0-20	21-40	41-60	61-80	81-100
Number of Candidates	108	15698	47766	40898	21905
Percentage of Candidates	0.09	12.42	37.80	32.36	17.33
Cumulative Number	108	15806	63572	104470	126375
Cumulative Percentage	0.09	12.51	50.30	82.67	100.00



PHYSICS
SCIENCE Paper 1

I. ANALYSIS OF PERFORMANCE

- (a) Give any two effects of a force on a non-rigid body. [2]
- (b) One end of a spring is kept fixed while the other end is stretched by a force as shown in the diagram.



- (i) Copy the diagram and mark on it the direction of the restoring force.
- (ii) Name one instrument which works on the above principle. [2]
- (c) (i) Where is the centre of gravity of a uniform ring situated?
- (ii) 'The position of the centre of gravity of a body remains unchanged even when the body is deformed.' State whether the statement is *true* or *false*. [2]
- (d) A force is applied on a body of mass 20 kg moving with a velocity of 40 ms^{-1} . The body attains a velocity of 50 ms^{-1} in 2 seconds. Calculate the work done by the body. [2]
- (e) A type of single pulley is very often used as a machine even though it does not give any gain in mechanical advantage.
- (i) Name the type of pulley used.
- (ii) For what purpose is such a pulley used? [2]

Examiners' Comments

- (a) - A few candidates related their answers to the change in size or shape, with a few relating it only to the other effects of forces common to both rigid and non-rigid bodies.
- Most candidates answered this question correctly by relating the answer to the change in dimension.
- (b)(i)
- Most candidates answered this question correctly
- A few candidates committed errors while drawing diagrams with no proper directions being shown.
- The arrow showing the direction of restoring force was not clearly visible when it was marked on the turns of the spring.

Suggestions for teachers

- Emphasise on the need for reading the question carefully and comprehend the key points required for a suitable answer to be written.
- Explain the difference between rigid body and non rigid body quoting suitable examples.
- The concept of restoring force should be taught with clarity citing additional examples.
- Students should be taught to read the question carefully before writing answers.
- Different colours may be used to highlight the answer.

- A few candidates explained the direction of restoring force that was not part of the question (ii).
- Some candidates wrote the names of playing/common devices containing a spring.
- Many candidates wrote only spring instead of spring balance.
- (ii) - Most candidates quoted examples of playing/common devices containing a spring. Most candidates wrote the term 'spring' instead of mentioning spring balance.
- (c)(i) This question was correctly answered by most candidates.
 - A few candidates used incorrect terms such as in the middle, inside the disc etc instead of writing the term geometric centre.
 - A few candidates drew sketches that were not part of the question.
- (ii) - Most candidates answered the question correctly stating that the statement is false. A few wrote incorrectly by stating the statement was true.
 - Most candidates were unable to solve this numerical.
- (d) - The candidates who solved the numerical, did so by calculating force and displacement instead of using work energy theorem.
 - During the course of solving the numerical, errors were committed in writing units of acceleration and velocity. Unit of work was written as Nm instead of writing the appropriate term 'joule'.
 - While calculating force most candidates used $g = 10$ or 9.8 ms^{-2} instead of calculating the value of acceleration.
- (e)(i) Most candidates answered the question correctly while a few wrote incorrect answers and made errors due to confusion over concepts of single fixed pulley and movable pulley.
- (ii) Most candidates answered the question correctly stating the use of change in direction. However a few candidates wrote incorrect and vague answers.

Suggestions for teachers

- Students should be made aware that the term 'instrument' implies only a scientific measuring device.
- Students must be advised to read the question thoroughly before attempts are made to answer.
- The difference between middle and centre should be taught with clarity.
- Additional examples may be discussed in length to reinforce concepts.
- Concepts relating to centre of gravity should be thoroughly explained by showing experiments involving change in the distribution of mass results that influence changes in the centre of gravity.
- Factors affecting the position of centre of gravity in a body should be explained intensively.
- Students should be trained to solve numericals using the methods of work energy theorem.
- Students may be advised to practice regularly in order to solve numericals confidently.
- Various alternate methods may be taught in all areas of calculation.
- The difference between concepts of movable and fixed pulley should be explained thoroughly.
- Experimental demonstrations would give clarity and clear doubts.

MARKING SCHEME

Question 1.

- (a) 1. Can change the dimensions of a body
2. Can start or stop the motion of the body.
3. Can change the speed
4. Can change the direction. (Any two points)
- (b) (i) Restoring force marked correctly in opposite direction.

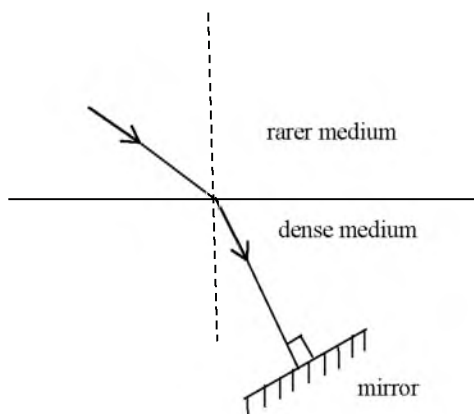


- (ii) Compression of Spring balance.
- (c) (i) At its Geometrical centre.
(ii) False
- (d) Work done = $\frac{1}{2} m (v^2 - u^2)$
 $= \frac{1}{2} \times 20 \times 900$
 $= 9000 \text{ J}$
- (e) (i) Single fixed pulley.
(ii) To change the direction of effort applied.

Question 2

- (a) (i) In what way does an 'Ideal machine' differ from a 'Practical machine'?
- (ii) Can a simple machine act as a force multiplier and a speed multiplier at the same time? [2]
- (b) A girl of mass 35 kg climbs up from the first floor of a building at a height 4 m above the ground to the third floor at a height 12 m above the ground. What will be the increase in her gravitational potential energy? ($g = 10 \text{ ms}^{-2}$). [2]
- (c) Which class of lever found in the human body is being used by a boy –
- (i) when he holds a load on the palm of his hand.
- (ii) when he raises the weight of his body on his toes? [2]

- (d) A ray of light is moving from a rarer medium to a denser medium and strikes a plane mirror placed at 90° to the direction of the ray as shown in the diagram.



- (i) Copy the diagram and mark arrows to show the path of the ray of light after it is reflected from the mirror.
- (ii) Name the principle you have used to mark the arrows to show the direction of the ray. [2]
- (e) (i) The refractive index of glass with respect to air is 1.5. What is the value of the refractive index of air with respect to glass?
- (ii) A ray of light is incident as a normal ray on the surface of separation of two different mediums. What is the value of the angle of incidence in this case? [2]

Examiners' Comments

- (a) (i) Most candidates answered this question correctly. A few candidates however related the answer to friction that forms only as one of the factors causing loss of energy. Most candidates wrote either on Practical machine or Ideal machine without establishing the difference between the two terms.
- (ii) Most candidates were unsure about the question and wrote incorrect answers
- (b) Most candidates understood the approach to the numerical, however they made calculation, substitution and unit errors. Some candidates calculated the potential energies separately but added them later on. A few candidates made incorrect observations by writing $g = 10\text{ms}^{-2}$ when the question clearly mentioned $g = 9.8\text{ms}^{-2}$.
- (c) (i) Most candidates answered the question correctly however it was observed that a certain amount of

Suggestions for teachers

- In questions that pose differences to be established, tabular presentations facilitate the understanding of concepts.
- Additional examples may be given to make the learning process easier to comprehend.
- Emphasis should be on manual calculations.
- Adequate practice of numericals must be carried out extensively.
- Correct noting and subsequent usage of data from questions posed must be given due importance during class discussions and practice sessions.

guesswork was carried out by a few candidates due to an element of uncertainty about writing the correct answer.

- (ii) Majority of the candidates answered incorrectly with a few candidates writing the correct answer.
- (d) (i) Only a few candidates answered the question correctly with many reflecting the path of the reflected ray and not mentioning the incident ray. Arrows on the rays were not marked in appropriate places by a majority of candidates.
- (ii) Most candidates were unable to identify the principle of reversibility. Incorrect spelling of principle and other key words were observed in many an answer.
- (e) (i) Incorrect symbols were written by a majority of candidates. Refractive index of glass with respect to air was written as ${}_g\mu_a$ and vice versa. Observations include writing direct answers with no calculation and bore no resemblance of establishing the working relationship:

$${}_a\mu_g = \frac{1}{{}_g\mu_a}$$

- (ii) A few candidates wrote $\angle i = 90^\circ$ that was a common error. Candidates failed to recognise that the angle of incidence is made with the normal and not with the surface.

Suggestions for teachers

- Students must be trained to identify the position of load, fulcrum and effort by observation and then identify the type. This exercise should be done with different examples taken from daily activities.
- Emphasis on marking the arrows on the ray when direction or medium is changed should be given due importance.
- Students must be guided to keep relevance of the question in mind and avoid ambiguity.
- Instructions must be given to avoid rote learning and extensive practice of diagrams must be done during classroom sessions.
- Concept of principle of reversibility of light should be explained citing more examples.
- All steps to be adopted in the working or functioning of all principles must be explained through regular practice sessions in class.
- Students should be trained to express final answers in decimal as per requirements.
- Meaning of ${}_a\mu_g$ and ${}_g\mu_a$ should be explained clearly and may be used while solving numericals for retention purposes.
- Stress on the fact that the angle of incidence is made with the normal and not with the surface.

MARKING SCHEME

Question 2.

(a) (i) <u>Ideal Machine</u> has 100 % efficiency M.A=V.R	<u>Practical Machine</u> has efficiency less than 100% M.A<V.R
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Output = Input

Output < Input

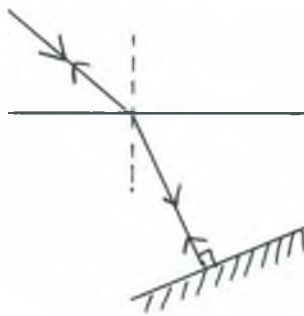
Anyone point

(ii) No, It will either be acting as a speed multiplier or a force multiplier.

(b) R.E. = $m \times g \times h$
= $35 \times 10 \times 8$
= 2800 J

- (c) (i) Class III lever
(ii) Class II lever

(d) (i)



rarer medium
denser medium
mirror

(ii) Principle of reversibility of the path of light

(e) (i) ${}_g\mu_a = \frac{1}{{}_a\mu_g} = \frac{1}{1.5} = 0.67$

(ii) $\angle i = 0^\circ$ or angle of incidence = 0°

Question 3

(a) A bucket kept under a running tap is getting filled with water. A person sitting at a distance is able to get an idea when the bucket is about to be filled.

(i) What change takes place in the sound to give this idea?

(ii) What causes the change in the sound?

[2]

(b) A sound made on the surface of a lake takes 3 s to reach a boatman.

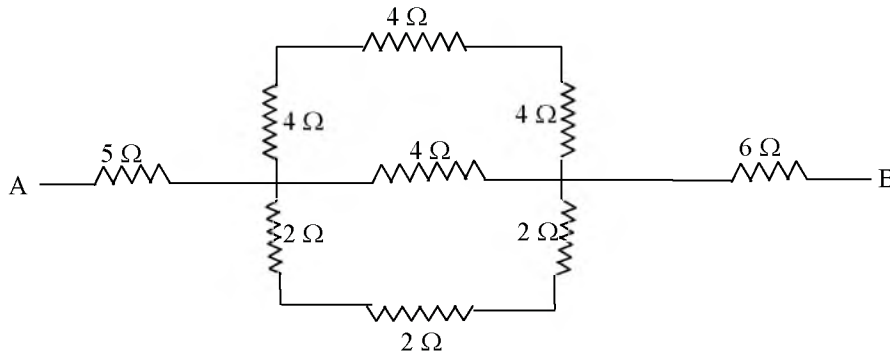
How much time will it take to reach a diver inside the water at the same depth?

Velocity of sound in air = 330 ms^{-1}

Velocity of sound in water = 1450 ms^{-1}

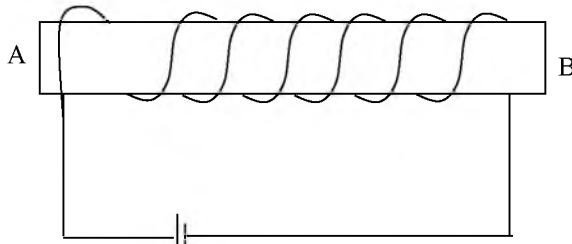
[2]

- (c) Calculate the equivalent resistance between the points A and B for the following combination of resistors:



[2]

- (d) You have been provided with a solenoid AB.



- (i) What is the polarity at end A?
- (ii) Give *one* advantage of an electromagnet over a permanent magnet. [2]
- (e) (i) Name the device used to protect the electric circuits from overloading and short circuits.
- (ii) On what effect of electricity does the above device work? [2]

Examiners' Comments

- (a) (i) & (ii) A majority of candidates were unable to write the correct answer with a few relating the answer to the resonance in the tube causing increase in amplitude and increase in loudness. Certain concepts of increase in frequency with the decrease in the length of the air column was missing. A few candidates wrote that frequency changes with the length of air column but failed to write the inverse proportion between them

Suggestions for teachers

- With a tuning fork and an air column in a glass tube; the relation 'length of the air column is inversely proportional to the frequency' should be made clear by means of a demonstration.
- Students should be taught that the formula $v = \frac{2d}{t}$ can be used only when reflection of sound is involved.

- (b) A majority of candidates applied $V = \frac{2d}{t}$ when the question does not involve echo or reflection of sound. A few candidates equated $\frac{v \times t}{2}$ for air and water and wrote the correct magnitude but lost marks for the wrong concept applied.
- (c) A few candidates attempted to solve the question without writing the left hand side of formula (the subject of formula)

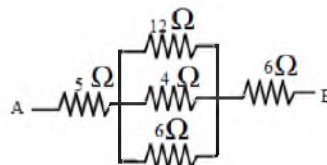
i.e. $\frac{1}{12} + \frac{1}{4} + \frac{1}{6} = \frac{1}{2} = 2\Omega$ Mathematically $\frac{1}{2} \neq 2$.

At every step candidates used the same variable R to calculate resistance with no distinction being shown. Omission of important steps and working of parallel combination was not shown hence it led to an under performance by a few candidates.

- (d) (i) Most candidates answered this question correctly with a few writing answers based on guess work.
 (ii) Most candidates answered this question correctly.
- (e) Majority of candidates wrote the devices correctly but failed to identify the principle on which it works. E.g. they wrote MCB but could not identify the principle 'magnetic effect of current.' and in some cases they wrote 'heating effect of current' as principle of MCB.
 Many candidates wrote fuse and how it helps in protecting the circuit yet failed to mention the physical term 'heating effect of current'.

Suggestions for teachers

- Concepts relating to reflection of sound, should be explained comprehensively through additional practice of numericals.
- Initially emphasise that students should go on simplifying the diagram after every step of calculation. For eg after showing the calculation of series combination, the diagram can be drawn as



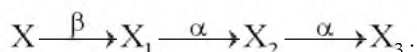
- Extensive practice of numericals involving series and parallel combination should be carried out.
- Correct methodology of working should be emphasised giving due importance on showing the significant steps involved and not merely writing the final correct answer.
- This concept may be clarified by way of a practical demonstration.
- Discussions on various forms of examples by changing the current and direction of turnings of the coil may be undertaken.
- Additional practice through demo based lessons can be carried out during classroom sessions.
- The different electrical components need to be discussed in the class with the principle on how they function through open house discussions and practical demonstrations.
- A small wooden board with wiring and fittings of different electrical components can be made in the laboratory and be used for demonstration purposes.

MARKING SCHEME**Question 3.**

- (a) (i) The sound becomes shriller and shriller / the pitch of sound increases.
(ii) As the level of water in the bucket increases, the length of the air column above it decreases so the frequency of pitch of the sound increases.
- (b) distance = speed x time
= 330 x 3 = 990 m
Time taken in water = 990/ 1450
= 0.68 S
- (c) $R = 4 + 4 + 4 = 12 \Omega$ $R' = 2 + 2 + 2 = 6 \Omega$
 $1/R'' = 1/12 + 1/4 + 1/6$
 $R'' = 2 \Omega$
Equivalent resistance = $5 + 2 + 6 = 13 \Omega$
- (d) (i) North pole
(ii) Polarity can be reversed / can be demagnetized / strength can be changed. (any one)
- (e) (i) Fuse
(ii) Heating effect of current.

Question 4

- (a) Define the term 'Heat capacity' and state its S.I unit. [2]
- (b) What is meant by Global warming? [2]
- (c) How much heat energy is released when 5 g of water at 20 °C changes to ice at 0 °C?
[Specific heat capacity of water = $4.2 \text{ J g}^{-1} \text{ }^\circ\text{C}^{-1}$
Specific latent heat of fusion of ice = 336 J g^{-1}] [2]
- (d) Which of the radioactive radiations -
(i) can cause severe genetical disorders.
(ii) are deflected by an electric field? [2]
- (e) A radioactive nucleus undergoes a series of decays according to the sequence



If the mass number and atomic number of X_3 are 172 and 69 respectively, what is the mass number and atomic number of X? [2]

Examiners' Comments

- (a) Most candidates answered the question correctly. However a few only wrote the definition with no mention of the unit of the specific heat capacity while others committed errors in writing the unit of the specific heat capacity.
- (b) Most candidates wrote correctly yet failed to frame the answer in accordance to what the question demanded. Instead of writing the average temperature of the earth few candidates wrote temperature of the earth or the atmosphere instead. A majority of candidates wrote the impact of global warming such as melting of glaciers, increase in the sea level instead of writing the definition of global warming.
- (c) Most candidates answered the first part of the question correctly however a few committed conceptual errors while answering the second part of the question.
- (d) Most candidates answered the first part of the question correctly however a few candidates committed conceptual errors while answering the second part of the question.
- (e) Most candidates answered the question correctly, however a few candidates were unable to apply the concerned law correctly that required a number of stages and in reverse order.

Suggestions for teachers

- Highlight the difference between heat capacity and specific heat capacity, and make students aware that the sp. Heat cap definition or unit is mentioned in place of heat capacity because sp. heat capacity is more commonly used in every numerical.
- A correct framing of answers needs to be emphasized upon where definitions and meanings of terms asked for need to be highlighted.
- Rote learning should be avoided and encourage students to satisfy their queries during discussions in class.
- Concepts relating to latent heat and the change of phase, to be explained thoroughly followed by extensive practice of numericals.
- It is important for clarity in concepts relating to gamma radiations not being termed as particles.
- Rutherford and Soddy's laws need to be explained thoroughly.
- Additional practice needs to be given to complete the nuclear equations over more stages of reaction and in reverse order too.

MARKING SCHEME

Question 4.

- (a) The heat capacity of a substance is the amount of heat energy required to raise the temperature of that substance through 1 K.
 J K^{-1} or $\text{J }^{\circ}\text{C}^{-1}$.
- (b) Global warming means the increase in the average effective temperature of earth's surface due to an increase in the amount of green house gases in its atmosphere.
- (c) $Q = mc\theta + mL$ $Q = 5 \times 4.2 \times 20 + 5 \times 336$
 $= 420 + 1680$
 $= 2100\text{J}$
- (d) (1) gamma radiations
(2) alpha and beta radiations.
- (e) Mass number of X = 180
Atomic number of X = 72.

Question 5

- (a) (i) With reference to their direction of action, how does a centripetal force differ from a centrifugal force?
- (ii) State the Principle of conservation of energy.
- (iii) Name the form of energy which a body may possess even when it is not in motion. [3]
- (b) A coolie is pushing a box weighing 1500 N up an inclined plane 7.5 m long on to a platform, 2.5 m above the ground.
- (i) Calculate the mechanical advantage of the inclined plane.
- (ii) Calculate the effort applied by the coolie.
- (iii) In actual practice, the coolie needs to apply more effort than what is calculated. Give one reason why you think the coolie needs to apply more effort. [3]
- (c) A block and tackle system of pulleys has a velocity ratio 4.
- (i) Draw a labelled diagram of the system indicating clearly the points of application and directions of load and effort.
- (ii) What is the value of the mechanical advantage of the given pulley system if it is an ideal pulley system? [4]

Examiners' Comments

- (a) (i) Majority of candidates were unable to justify their answers and lacked expression. A few candidates mentioned that the centripetal force is towards the centre of the circle and centrifugal force away from centre of the circle instead of writing centre of circular path of motion.
- (ii) Most candidates answered this question correctly. However a few committed errors due to lack of expression and flaws in language skills.
- (iii) A few candidates failed to comprehend the question and wrote incorrect answers due to lack of understanding of the basic concepts related to the topic.
- (b) Most candidates answered this question correctly. Some of them used relation $\text{Load} \times \text{Load arm} = \text{Effort} \times \text{Effort arm}$ to calculate effort and then used $\text{M.A.} = \frac{L}{E}$. They did not realise the relation

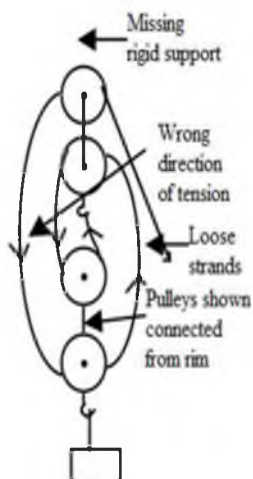
Suggestions for teachers

- Centripetal and centrifugal force must be clearly explained with a demonstration of a simple thread and stone or by asking two students to hold each other's hands while facing each other and leaning backwards and moving in a circle.
- Emphasis must be laid on correctness of language/right terminology to be used in answering correctly.
- Instruct students to focus on important concepts taught in class to enable them to write effective answers. Probable errors that surface may be discussed to avoid their repetition in the future.

Load \times Load arm = Effort \times Effort arm is applicable only to levers thus conceptually it becomes wrong even though the answer is correct. A few candidates were unable to answer the third part of the question relating to frictional force of the surface.

- (c) Most candidates scored poorly due to making of rough sketches. No rigid support was shown. In some cases pulleys were shown to be connected from the rim and not from the centre. Even in some cases, the hook to suspend the load or connecting the two blocks was shown from the rim.

Strands were not shown under tension but were shown loose. Incorrect direction of tension and in some cases direction of Load and effort was missing. Errors are shown in the adjacent diagram.



Suggestions for teachers

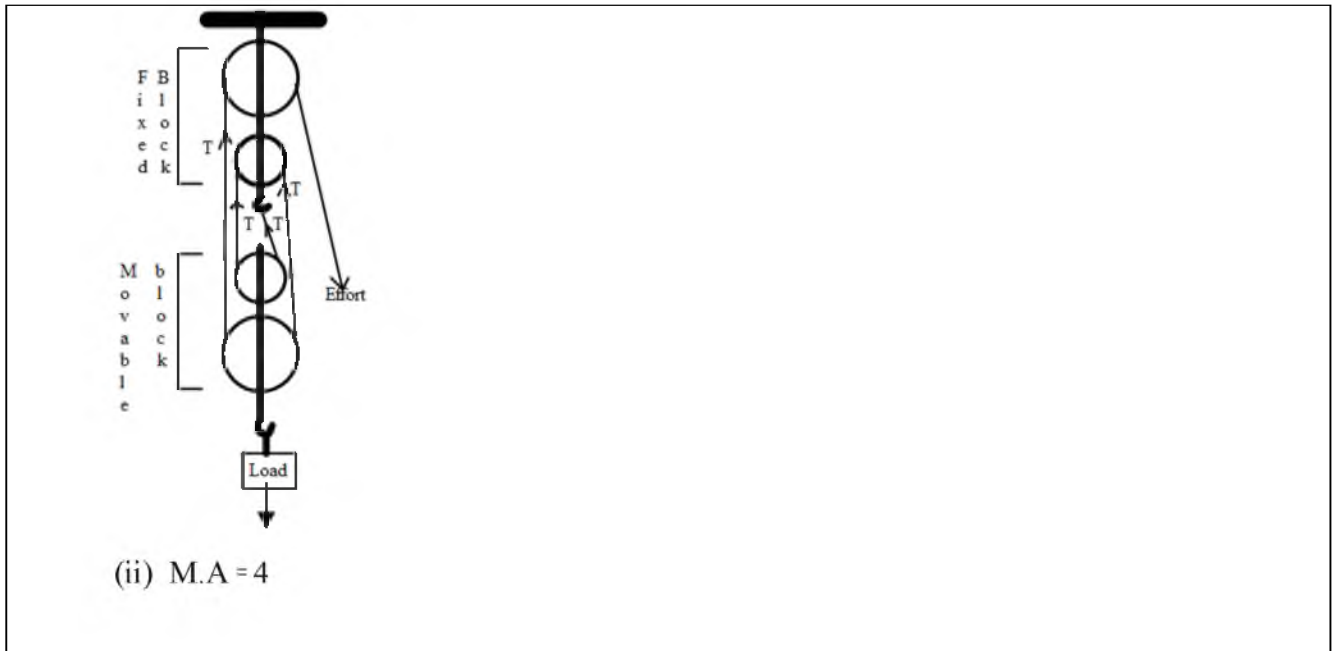
- Proper mathematical skills should be developed by practising more numericals.
- Additional practice is needed in solving numericals of inclined plane.
- Students should also know that $M.A. = \frac{l}{h}$ is applicable to inclined plane in an ideal case.
- Emphasise the need and importance of using diagrams that can be practiced during class discussions and later through home assignments.
- Regular periodic practice should be given in making diagrams with various velocity ratios.

The second part of the question was correctly answered by most candidates.

MARKING SCHEME

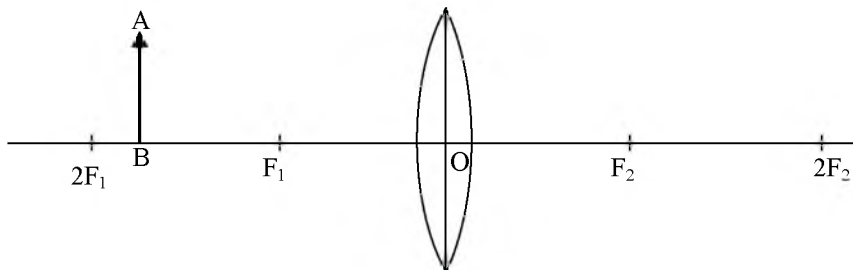
Question 5.

- (a) (i) Centripetal force is a force directed towards the centre of circle at each point.
Centrifugal force is force acting away from the centre of the circular path.
- (ii) Energy can neither be created nor can it be destroyed. It only changes from one form to another. The sum total of energy in the universe always remains the same.
- (iii) Potential energy.
- (b) (i) $M.A = l/h = 7.5/2.5 = 3$
- (ii) $M.A = \text{Load} / \text{Effort} \quad 3 = 1500 / \text{Effort}$
 $\text{Effort} = 500 \text{ N}$
- (iii) More effort is required to overcome the friction between the box and the surface of inclined plane.
- (c) (i) Correct diagram drawn with proper arrangement of 4 pulleys, load and effort



Question 6

- (a) Name the radiations:
 - (i) that are used for photography at night.
 - (ii) used for detection of fracture in bones.
 - (iii) whose wavelength range is from 100 \AA to 4000 \AA (or 10 nm to 400 nm). [3]
- (b) (i) Can the absolute refractive index of a medium be less than one?
- (ii) A coin placed at the bottom of a beaker appears to be raised by 4.0 cm. If the refractive index of water is $\frac{4}{3}$, find the depth of the water in the beaker. [3]
- (c) An object AB is placed between $2F_1$ and F_1 on the principal axis of a convex lens as shown in the diagram:



Copy the diagram and using three rays starting from point A, obtain the image of the object formed by the lens.

[4]

Examiners' Comments

- (a) Most candidates answered the question correctly. However a few candidates used IR for infra red radiations which is not the standard abbreviation. While others appeared confused between the uses of infra red and ultra violet radiations.
- (b) (i) A few candidates wrote the correct answer by simply stating "yes" however it was more of guesswork on their part.
(ii) 'Appears to be raised', was interpreted as apparent depth by a few candidates while others did not write the unit for final answer.
- (c) Most candidates were unable to draw the third ray correctly. Some candidates used the logic that rays coming from the same point after refraction through the lens meet at the same point. After drawing two correct rays they randomly showed third ray incident at any point on the lens and joined it to the same point of intersection of the first two rays. Candidates must understand that if they draw this random ray first then its path cannot be completed independently (i.e. without taking the help of other rays).
Many candidates failed to mark the arrows on the rays before and after refraction.
Many candidates were found wanting in their answers as they did not mark F and 2F at equidistance on either side. Hence, the object position was wrong and the image which was obtained had wrong characteristics.

Suggestions for teachers

- Students should be instructed to avoid the use of abbreviations and write the complete form.
- Comparative properties, uses and wavelength of radiations need to be discussed with students regularly and revision must be carried out periodically.
- It should be made clear to students that in no medium, light travels faster than sound therefore in the relation $\mu = \frac{\text{speed of light in vacuum}}{\text{speed of light in the medium}}$ the denominator is always less than the numerator and hence absolute refractive index can never be less than 1.
- Additional practice should be given in solving numericals.
- Should emphasise on careful reading and writing the data before solving the numerical.
- While teaching diagrams on rays in the class it should be taught using three rays.
- Insist on the completion of technicalities of the diagram. i.e. same distance between F and 2F, arrows before and after refraction etc.

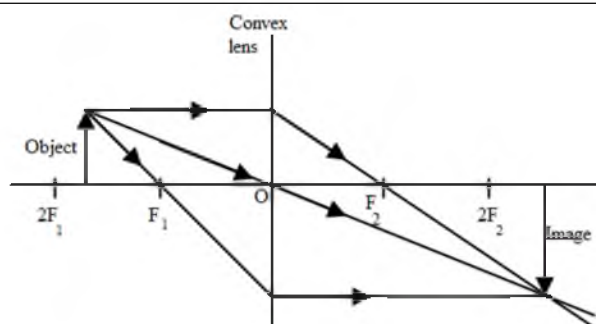
MARKING SCHEME

Question 6.

- (a) (i) Infra-red radiations.
(ii) X rays
(iii) Ultraviolet radiations.
- (b) (i) No, because refractive index = C / V and C is always greater than V therefore refractive index > 1
(ii) $\mu = \text{Real depth/ Apparent depth}$

$$4/3 = \frac{x}{x-4} \quad x = 16 \text{ cm.}$$

(c)



A ray shown parallel to the principal axis and passing through F_2 ,
A ray shown passing through optical centre and moving undeviated.
A ray shown passing through F_1 and moving parallel to the principal axis. Image shown correctly.

Question 7

- (a) (i) What is the principle on which SONAR is based?
- (ii) An observer stands at a certain distance away from a cliff and produces a loud sound. He hears the echo of the sound after 1.8 s. Calculate the distance between the cliff and the observer if the velocity of sound in air is 340 ms^{-1} . [3]
- (b) A vibrating tuning fork is placed over the mouth of a burette filled with water. The tap of the burette is opened and the water level gradually starts falling. It is found that the sound from the tuning fork becomes very loud for a particular length of the water column.
- (i) Name the phenomenon taking place when this happens.
- (ii) Why does the sound become very loud for this length of the water column? [3]
- (c) (i) What is meant by the terms (1) amplitude (2) frequency, of a wave?
- (ii) Explain why stringed musical instruments, like the guitar, are provided with a hollow box. [4]

Examiners' Comments

- (a) (i) Most candidates stated what SONAR stood for rather than writing its principle.
- (ii) A majority of candidates correctly solved the numerical, however a few candidates failed to mention the unit of the final answer which displayed a sense of carelessness and applied $v = \frac{d}{t}$ instead of $v = \frac{2d}{t}$.
- (b) Most candidates identified the phenomenon and answered correctly, however a few minor details were not mentioned in the answer. For e.g., a few candidates made no attempt to mention that the increase in amplitude is due to resonance that causes the increase in loudness.
- (c) Most candidates were unable to score as they wrote definitions with reference to vibrating pendulum and not wave particle or particle of medium. In the definition of amplitude, the word maximum was missing for displacement. Many candidates related their answers to the resonance rather than the surface area of the hollow sound box.

Suggestions for teachers

- Emphasise that the principle of SONAR is 'Principle of reflection of Ultrasonic waves'.
- Assign additional practice of numericals involving the application of $v = \frac{d}{t}$ and $v = \frac{2d}{t}$ in the same sum thus making it clear that $v = \frac{2d}{t}$ can be applied only if reflection of sound wave is involved.
- This concept needs to be dealt through simple demonstrations showing resonance in air column.
- Key points related to the phenomenon of resonance such as natural frequency, increase in amplitude should be explained on a regular basis.
- Stress must be laid on definitions of the terms such as amplitude, frequency and related terms with respect to a wave.
- The primary reason of having a sound box for a stringed musical instrument is a larger surface area. This should be made clear to students by using simple demonstration with a vibrating tuning fork touching a table surface. Explain how energy transmitted to more air particles helps in increasing the loudness.

MARKING SCHEME

Question 7.

- (a) (i) principle of echo.
- (ii) $V = 2 \text{ distance} / \text{time}$
- Distance = $(340 \times 1.8) / 2$
- = 306 m.
- (b) (i) Resonance
- (ii) This happens because the frequency of the tuning fork becomes equal to the natural frequency of the vibrating air column, therefore air particles start vibrating with greater amplitude.

- (c) (i) (1) Amplitude is the maximum displacement of a wave particle from its mean position
 (2) Frequency is the number of waves passing a point in one second's time.
 (ii) The vibrating strings cause the air in the hollow box to undergo forced vibrations.
 The large surface area of the box causes more air to vibrate producing a louder sound

Question 8

- (a) (i) It is observed that the temperature of the surroundings starts falling when the ice in a frozen lake starts melting. Give a reason for the observation.
- (ii) How is the heat capacity of the body related to its specific heat capacity? [3]
- (b) (i) Why does a bottle of soft drink cool faster when surrounded by ice cubes than by ice cold water, both at 0°C ?
- (ii) A certain amount of heat Q will warm 1 g of material X by 3°C and 1 g of material Y by 4°C . Which material has a higher specific heat capacity? [3]
- (c) A calorimeter of mass 50 g and specific heat capacity $0.42\text{ J g}^{-1}\text{ }^{\circ}\text{C}^{-1}$ contains some mass of water at 20°C . A metal piece of mass 20 g at 100°C is dropped into the calorimeter. After stirring, the final temperature of the mixture is found to be 22°C . Find the mass of water used in the calorimeter.
- [specific heat capacity of the metal piece = $0.3\text{ J g}^{-1}\text{ }^{\circ}\text{C}^{-1}$
 [specific heat capacity of water = $4.2\text{ J g}^{-1}\text{ }^{\circ}\text{C}^{-1}$] [4]

Examiners' Comments

- (a) Most candidates scored poorly as they only wrote about heat being absorbed by ice to melt, but failed to mention the surrounding or large quantity of heat. A few candidates even wrote that ice on melting gives out heat. In the second part of the question the symbols C and C' were not used correctly. They wrote $C = m C'$. Many candidates were unaware of the relation $\text{Heat capacity} = \text{mass} \times \text{specific heat capacity}$ with a few differentiating between heat capacity and specific heat capacity.
- (b) A few candidates were confused in their expression and inadvertently missed out on the word extra heat absorbed during the process of melting.

Suggestions for teachers

- Students should be trained to cover all relevant points assigning reasons for the same.
- Topics must cover certain basic and key points related to the terms and their explanation.
- The difference between heat capacity and specific heat capacity should be explained and their mathematical relation should be explained thoroughly.

Many candidates however answered this part correctly, while others answered incorrectly as they could not understand the inverse proportion between specific heat capacity and rise in temperature for same mass and for same amount of heat supplied.

- (c) Most candidates committed errors while solving this numerical with many being unable to form an equation.

A few candidates wrote the correct equation but committed errors in substitution or in calculations.

In many cases the final answer was written as 50 g rather than expressing it in terms of a decimal.

Suggestions for teachers

- Instruct and guide students to focus on the requirements of the question and write answers as per requirement.
- Topics must be made clear as to how factors related to heat are absorbed or released when some factors are kept constant.
- Advise students on issues concerning equations where the type of numerical should be identified, as suggested in Q4 C, then write the data in proper units and finally attempt to solve the sum.

MARKING SCHEME

Question 8.

- (a) (i) When ice melts it draws latent heat (336 J g^{-1}) from the surroundings. This results in a lowering of temperature.

(ii) Heat capacity = mass x specific heat capacity.

- (b) (i) Cubes of ice at 0°C will absorb additional heat in the form of latent heat to melt (1) to water at 0°C which ice cold water at 0°C will not absorb.

(ii) Material Y

- (c) $m_s c_s \theta_s = m_w C_w \theta_w + m_c C_c \theta_c$

$$20 \times 0.3 \times 78 = m_w \times 4.2 \times 2 + 50 \times 0.42 \times 2$$

$$8.4 m = 426$$

$$m = 50.7 \text{ g}$$

Question 9

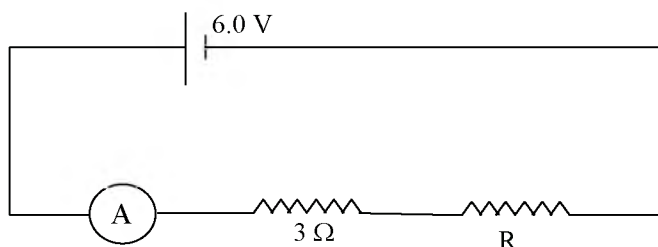
- (a) (i) State Ohm's law.

(ii) A metal wire of resistance 6Ω is stretched so that its length is increased to twice its original length. Calculate its new resistance. [3]

- (b) (i) An electrical gadget can give an electric shock to its user under certain circumstances. Mention any two of these circumstances.

(ii) What preventive measure provided in a gadget can protect a person from an electric shock? [3]

(c) The figure shows a circuit



When the circuit is switched on, the ammeter reads 0.5 A.

- (i) Calculate the value of the unknown resistor R.
- (ii) Calculate the charge passing through the $3\ \Omega$ resistor in 120 s.
- (iii) Calculate the power dissipated in the $3\ \Omega$ resistor.

[4]

Examiners' Comments

- (a) A few candidates failed to mention 'the temperature or physical conditions remaining constant' in the statement of Ohm's law while others wrote potential difference is directly proportional to the current instead of vice versa. In the numerical most candidates seemed unaware that stretching the wire not only doubles the length but halves the cross sectional area too. They just doubled the resistance. Double resistance due to halving of cross sectional area was not calculated. In a few cases direct answers were written with no working of the numerical.
- (b) Most candidates made no mention of the important point about earthing being absent and stated situations where the ultimate meaning was the same as a live wire coming in contact with the body of the appliance or the body of the person touching the appliance. In the second part of the question many candidates wrote the correct answer barring a few who wrote fuse instead of the term earthing.
- (c) Most candidates answered the first part of the question correctly but committed errors in the 2nd and 3rd part of the question with a few using $P = \frac{V^2}{R}$ and then used $V = 6\text{ V}$.

Suggestions for teachers

- All topics concerning laws need to be explained and expressed as per existing facts.
- Factors related to the resistance need to be discussed with the help of numericals.
- When the wire is stretched or folded it may be expressed with the help of a direct formula 'New Resistance = $x^2 \times$ initial resistance' Where x = the number of times the wire is stretched or folded on itself.
- It should be made clear to students, that all circumstances of getting an electric shock can be classified as:
 - Circuit completing through the body of the person handling the appliance.
 - Absence of earthing.
 - Voltage fluctuations, inducing current in the metallic part of the body.
- Regular practice of different types of numericals must be carried out in class.
- The concept that the voltage splits up in direct proportion with the resistance in series combination of resistors and current in series combination of resistances remains the same, should be made amply clear to the students.

MARKING SCHEME

Question 9.

- (a) (i) Correct statement of Ohm's law.
(ii) $R = \rho \frac{l}{A} \rightarrow \rho = \frac{R A}{l}$
 $R_1 = \rho \frac{2l}{A/2}$
 $R_1 = \rho \frac{4l}{A} \rightarrow R_1 = 24 \Omega$
- (b) (i) 1. The live wire comes in contact with a person's body
2. The body of the appliance is not properly earthed.
(ii) Earthing of the appliance.
- (c) (i) $I = V/R$
 $0.5 = \frac{6}{3+R}$
 $R = 9 \Omega$.
(ii) $Q = I \times t$
 $Q = 0.5 \times 120 = 60 \text{ C}$
(iii) $P = I^2 R$
 $= 0.5 \times 0.5 \times 3 = 0.75 \text{ W}$.

Question 10

- (a) Name the *three* main parts of a Cathode Ray Tube. [3]
- (b) (i) What is meant by Radioactivity?
(ii) What is meant by nuclear waste?
(iii) Suggest *one* effective way for the safe disposal of nuclear waste. [3]
- (c) (i) Draw a simple labelled diagram of a d.c. electric motor.
(ii) What is the function of the split rings in a d.c. motor?
(iii) State *one* advantage of a.c. over d.c. [4]

Examiners' Comments

(a) Most candidates answered this question correctly barring a few who made spelling errors.

(b) Important key words such as spontaneously and nucleus were absent in the definition in the answers of most candidates.

Many candidates were unaware about the term nuclear waste and wrote incorrect answers that had no clarity.

In the third part of the question many candidates mentioned 'away from residential area' but failed to mention 'buried underground' with some even stating dumped on the ground.

(c) Most candidates drew wrong and non-functional diagrams with the following observations:

* Slip rings were drawn instead of split rings.

* Battery was missing.

* Carbon brushes were missing.

Many candidates failed to write the function of split rings. In some cases, to change the direction of current was mentioned but failed to state after every 180° rotation.

Most candidates were not clear of the advantages of A.C. over D.C. They wrote vague answers like A.C. changes direction so it is better than D.C.

Suggestions for teachers

– Emphasis should be made to correctly write terms associated with concerned topics.

– This topic needs to be discussed with students rather than giving them for self-study.

– Students need to be given sufficient practice in drawing diagrams.

– Explain the difference between D.C. motor and A.C. generator clearly in particular the commutator system in both.

– The basic advantage of A.C. over D.C. during the transmission of power needs to be explained clearly to students.

MARKING SCHEME

Question 10.

(a) 1. Electron gun.

2. Deflecting system.

3. Fluorescent screen.

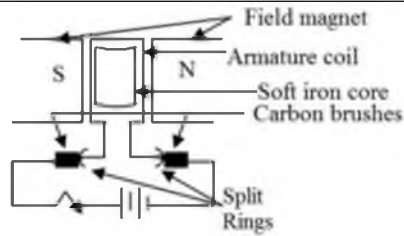
(b) (i) The spontaneous emission of alpha, beta and gamma radiations from the nucleus of an atom.

(ii) The radioactive material after its use is known as nuclear waste.
released in the form of gamma radiations.

(iii) Should be kept in thick casks and buried in specially constructed deep underground stores.

(c) (i) Labelled diagram of d.c. motor

- (ii) The split rings
- current in the coil
- (iii) The voltage of
- of d.c. cannot.



reverse the direction of
after every half a turn.
a.c. can be altered but that

Topics/Concepts found difficult or confusing

- Application of work – energy theorem.
- Function of a machine as speed multiplier and force multiplier not possible simultaneously.
- Vibrations in an air column.
- Working of M.C.B.
- Heat numericals.
- Diagrams of pulley systems.
- Inclined plane numericals.
- Drawing of ray diagram using three rays.
- Definitions of the terms related to a wave and loudness of stringed musical instruments.
- Numericals of electricity especially involving relation $\frac{R_1 A_1}{l_1} = \frac{R_2 A_2}{l_2}$.
- Reasons for getting an electric shock.
- Diagram of D.C. motor.

Suggestions for the students

- Use the reading time of 15 minutes judiciously to make a proper choice of questions from section II by reading the requirements of the question carefully supported with a high level of concentration.
- Avoid writing answers which are simply a repetition of the question instead be specific about the key word in that statement.
- Students must not leave any topic for option. All topics are covered in section I which is compulsory.
- Avoid changing the order of sequence of questions and numbering system.
- Handwriting should be neat and legible .
- Learn the principles, laws and definitions accurately.
- Ray diagrams and the other diagrams need to be practiced periodically.
- While writing answers it not only important to cover all relevant points but to present them in a proper sequence.
- While solving a numerical it is advisable that the formula needs to be written in the beginning. Essential steps need to be shown and final answer needs to be expressed along with a proper unit. Avoid computation at the first step; let it be plain substitution as the marks are awarded for correct substitution.
- Be regular in your study habits. Complete your syllabus well in time. A thorough revision of all topics is all time important.
- It is advisable to solve previous year's papers in writing.
- More emphasis should be given on writing rather than on memorising.
- For speed in mathematical calculations; it is advisable to learn tables up to 30, know squares up to 30, cubes up to 15 and basics of fractions and decimal.

CHEMISTRY
SCIENCE Paper - 2

II. ANALYSIS OF PERFORMANCE

- (a) From the list given below, select the word(s) required to correctly complete blanks (i) to (v) in the following passage. The words from the list are to be used only once. Write the answers as (a) (i), (ii), (iii) and so on. Do not copy the passage.

[ammonia, ammonium, carbonate, carbon dioxide, hydrogen, hydronium, hydroxide, precipitate, salt, water]:

- (i) A solution **M** turns blue litmus red, so it must contain (i) _____ ions;
another solution **O** turns red litmus blue and hence, must contain (ii) _____ ions.
- (ii) When solutions **M** and **O** are mixed together, the products will be (iii) _____
and (iv) _____.
- (iii) If a piece of magnesium was put into a solution **M**, (v) _____ gas would be evolved. [5]

- (b) Identify the gas evolved in the following reactions when:

- (i) sodium propionate is heated with soda lime.
- (ii) potassium sulphite is treated with dilute hydrochloric acid.
- (iii) Sulphur is treated with concentrated nitric acid.
- (iv) a few crystals of KNO_3 are heated in a hard glass test tube.
- (v) concentrated hydrochloric acid is made to react with manganese dioxide. [5]

- (c) State *one* appropriate observation for each of the following:

- (i) Concentrated sulphuric acid is added drop wise to a crystal of hydrated copper sulphate.
- (ii) Copper sulphide is treated with dilute hydrochloric acid.
- (iii) Excess of chlorine gas is reacted with ammonia gas.
- (iv) A few drops of dilute hydrochloric acid are added to silver nitrate solution, followed by addition of ammonium hydroxide solution.
- (v) Electricity is passed through molten lead bromide. [5]

- (d) Give suitable chemical terms for the following:
- A bond formed by a shared pair of electrons with both electrons coming from the same atom.
 - A salt formed by incomplete neutralisation of an acid by a base.
 - A reaction in which hydrogen of an alkane is replaced by a halogen.
 - A definite number of water molecules bound to some salts.
 - The process in which a substance absorbs moisture from the atmospheric air to become moist, and ultimately dissolves in the absorbed water. [5]
- (e) Give a chemical test to distinguish between the following pairs of compounds:
- Sodium chloride solution and sodium nitrate solution.
 - Hydrogen chloride gas and hydrogen sulphide gas.
 - Ethene gas and ethane gas.
 - Calcium nitrate solution and zinc nitrate solution.
 - Carbon dioxide gas and sulphur dioxide gas. [5]
- (f) Choose the most appropriate answer from the following options:
- Among the period 2 elements, the element which has high electron affinity is
 - Lithium
 - Carbon
 - Chlorine
 - Fluorine
 - Among the following compounds identify the compound that has all three bonds (ionic, covalent and coordinate bond).
 - Ammonia
 - Ammonium chloride
 - Sodium hydroxide
 - Calcium chloride.
 - Identify the statement that is incorrect about alkanes:
 - They are hydrocarbons.
 - There is a single covalent bond between carbon and hydrogen
 - They can undergo both substitution as well as addition reactions
 - On complete combustion they produce carbon dioxide and water.

- (iv) Which of these will act as a non-electrolyte?
- (A) Liquid carbon tetrachloride
 - (B) Acetic acid
 - (C) Sodium hydroxide aqueous solution acid
 - (D) Potassium chloride aqueous solution.
- (v) Which one of the following will not produce an acid when made to react with water?
- (A) Carbon monoxide
 - (B) Carbon dioxide
 - (C) Nitrogen dioxide
 - (D) Sulphur trioxide.
- (vi) Identify the metallic oxide which is amphoteric in nature:
- (A) Calcium oxide
 - (B) Barium oxide
 - (C) Zinc oxide
 - (D) Copper(II)oxide.
- (vii) In the given equation identify the role played by concentrated sulphuric acid
- $$S + 2H_2SO_4 \longrightarrow 3SO_2 + 2H_2O:$$
- (A) Non-volatile acid
 - (B) Oxidising agent
 - (C) Dehydrating agent
 - (D) None of the above.
- (viii) Nitrogen gas can be obtained by heating:
- (A) Ammonium nitrate.
 - (B) Ammonium nitrite.
 - (C) Magnesium nitride.
 - (D) Ammonium chloride.
- (ix) Which of the following is not a typical property of an ionic compound?
- (A) High melting point.
 - (B) Conducts electricity in the molten and in the aqueous solution state.
 - (C) They are insoluble in water.
 - (D) They exist as oppositely charged ions even in the solid state.

[5]

(x) The metals zinc and tin are present in the alloy:

- (A) Solder.
- (B) Brass.
- (C) Bronze.
- (D) Duralumin.

[10]

(g) Solve the following:

(i) What volume of oxygen is required to burn completely 90 dm³ of butane under similar conditions of temperature and pressure?



(ii) The vapour density of a gas is 8. What would be the volume occupied by 24.0 g of the gas at STP? [2]

(iii) A vessel contains X number of molecules of hydrogen gas at a certain temperature and pressure. How many molecules of nitrogen gas would be present in the same vessel under the same conditions of temperature and pressure? [1]

Examiners' Comments

(a) (i) Most candidates answered this part correctly. However some listed hydrogen instead of hydronium and hence could not use this option for (v) as it could be used only once. Errors were also made by interchanging the two words in blanks (i) and (ii).

(ii) The products salt and water were confused with type of ions formed. Hence wrong representation was made with ammonium or carbonate ions by some candidates.

(iii) Most candidates answered this Part correctly. A few mentioned ammonia or CO₂ gas showing guess work.

(b)(i) The following errors were observed :

1. Gas evolved was wrongly listed as methane or sulphur dioxide or carbon dioxide.
2. Candidates mechanically stated the equation and failed to highlight or identify the gas in it.
3. Some wrote the formula of the reactant wrong.
4. Some candidates failed to recollect the name of the gas evolved.

Suggestions for teachers

- Insist on students reading instructions carefully. Confusion about the colour changes with litmus and acid or alkali indicates insufficient lab experience.
- Certain organic equations need to be taught using structural formulae as this helps in understanding how products are formed
- Ensure students are well versed with the IUPAC and trivial nomenclature of organic compounds.
- Stress on the general equations of acids so as to be able to differentiate between similar sounding compounds.
- Ensure students know the variation in products as concentration of HNO₃ differs and also adequate practice needs to be given in writing correctly balanced equations.

- (ii) Some candidates had wrongly identified the gas as H_2S instead of SO_2 that indicated there was confusion between Potassium Sulphite and potassium sulphide.
 - (iii) Keeping in mind the oxidizing nature of HNO_3 candidates suggested the formation of SO_2 instead of NO_2 .
 - (iv) Many candidates wrote NO_2 instead of O_2 .
 - (iv) Some candidates recorded the gas as greenish yellowish gas instead of Chlorine.
- (c)(i) Candidates wrote incomplete observations. If the focus was on colour then the change from blue to white (not colourless as it does not apply to solids) was expected to be mentioned. If the focus was placed on state then crystalline state to amorphous or powder form would have made the answer complete.
- (ii) Most candidates answered this part correctly. Some identified the gas instead of stating its characteristic smell while others failed to record the smell correctly and called it pungent smelling.
 - (iii) Most candidates failed to specify the colour or state of the product and named the product instead..
 - (iv) White precipitate was incorrectly replaced by gelatinous by some, others failed to record the solubility of the white ppt in NH_4OH .
 - (v) Some candidates mentioned the ions formed at the electrode instead of naming the products Lead and Bromine. Some did not match the observation with the electrode correctly or the colour stated of Bromine or Lead was incorrect.
- (d) (i) Most candidates answered correctly but some mentioned covalent bond and others stated electrovalent bond.
- (ii) Most candidates answered this part correctly but few made an error of calling it a basic salt.
 - (iii) Majority of candidates answered this part correctly, however a few addressed it as a replacement reaction or addition reaction while others referred to it as dehydrohalogenation.
 - (iv) The term water of crystallization was incorrectly referred to as hydrated crystals.
 - (v) Some candidates incorrectly answered as

Suggestions for teachers

- Attention needs to be focused on the grouping of nitrates into those of very reactive metals, the reactive ones and the least reactive ones and how the products vary on heating them. Theory needs to be supplemented with practical work so that the essential differences can be noted by students.
- Avoid rote memorizing by students, by explaining how the oxidation of HCl by the oxidizing agents takes place.
- Students must be instructed to specify the change that can be observed from initial stage to final and not just the end result.
- Adequate practical work if carried out, will surely go a long way in helping students recall observations.
- Instructions, guiding students while making observations during practical work, need to be repeated.
- During practical work emphasize on the colour of the precipitates formed and their solubility or non solubility in specific reagents.
- Stress on the fact that ions are an essential component of an electrolyte and on passing electricity these get discharged at the respective electrodes forming different products. While explaining this also highlight on the colour or form of the products formed.
- Illustrate the difference between covalent and coordinate bond by explaining the lone pair effect.
- Students could maintain a glossary of chemical terms and their meanings along with a list of examples for each.
- Highlight the difference in the behavior of saturated and unsaturated organic compounds clearly so that the concept of substitution and addition reactions is well understood.

- efflorescent or Hygroscopic.
- (e) (i) Common errors that was repeated among all the sub parts was that even if the reagent was correctly chosen the result with both the substances under consideration was not specified.
The reagent, conc. H_2SO_4 , was incorrectly chosen by many candidates.
- (ii) Most candidates differentiated on the basis of smell and did not fulfil the requirement of chemical test. Some suggested blue litmus turning red for HCl and the other way round for H_2S . A few candidates did not use the same reagent for both gases.
- (iii) Most candidates brought out the difference on the basis of bonds present i.e double bond and single bonds and did not give a chemical test to distinguish. Some other candidates specified the kind of reactions shown by both i.e addition and substitution reactions respectively or the type of compounds as being unsaturated and saturated.
- (iv) Candidates used NaOH as the distinguishing reagent and stated the colour of the ppt with each solution but failed to specify the solubilities of the ppt in the reagent.
Most candidates were unaware that $\text{Ca}(\text{NO}_3)_2$ solution does not form ppt with NH_4OH .
- (v) Most candidates did not associate the word solution / paper / acidified with $\text{K}_2\text{Cr}_2\text{O}_7$ or KMnO_4 .
Some used lime water test which was answered by both gases
- (f) (i) Chlorine and lithium were the occasional wrong answers.
- (ii) Most candidates answered correctly. A few candidates chose Ammonia as the correct options.
- (iii) Most candidates answered correctly.
- (iv) Some candidates wrote acetic acid.
- (v) Most candidates answered correctly.
- (vi) Oxide chosen at random.
- (vii) Some candidates incorrectly answered

Suggestions for teachers

- Ensure students have clarity regarding the different terms by supplying variety of compounds and asking to classify them into those that show the properties and those that do not.
- Train students to state the result of the test, with both substances, besides mentioning the choice of reagent. Students need to be given adequate practice in distinguishing substances and teachers could assist students by enumerating the results in a tabular form.
- Written practice in differentiating substances must be given from time to time. Students should be trained to respond correctly to the instructions given.
- Adequate practical work would take care of these type of questions.
- Emphasize on certain key words when carrying out the practical work or during explanations.
- Students need to remember the 1st 20 elements.
- Ensure students understand the concept of bonding with relevant examples.
- Develop an understanding of the types of electrolytes by incorporating a large number of examples.
- Ensure students have knowledge of the existence of various types of oxides and know the criteria to classify them.
- Enumerate these reactions in a tabular form with the associated properties after explaining the various roles of sulphuric acid.
- Regular objective tests will help in retention.
- A comparative study of the properties of ionic and covalent compounds is essential.
- Thorough revision on the main constituents of alloys and the change in properties brought about by alloying.
- Students must be clear about the basic concepts so that understanding relation between mole, molar mass and molar volume is possible.

this part as a dehydrating agent.

(viii) Most candidates correctly answered.

A few however incorrectly answered as Ammonium nitrate.

(ix) Most candidates answered this part correctly. Occasional errors showed a lack of understanding of the properties of ionic compounds.

(x) There was confusion between the components of brass and bronze.

(g) (i) Candidates failed to calculate the gram molecular weight correctly.

(ii) Knowledge of gram molecular volume was missing.

(iii) Most candidates answered this part correctly. Some suggested 6.023×10^{23} molecules of N_2 or multiplied X by 6.023×10^{23} molecules.

– Adequate practice in application of Avogadro's law after explaining it and pointing out the variations from Gay Lussacs law.

MARKING SCHEME

Question 1

- a) Each correct answer carries
- hydronium ions
 - hydroxide ions
 - salt
 - water
 - hydrogen
- b) Each correct answer carries
- Ethane
 - Sulphur dioxide
 - Nitrogen dioxide
 - Oxygen
 - Chlorine
- c) One appropriate observation carry
- The crystals turn from blue to white/ crystalline to amorphous or powdery.
 - Gas with a rotten egg smell is produced and the solution turns blue.
 - Yellow oily liquid of nitrogen trichloride is produced
 - Curdy white precipitate is formed which turns colourless on addition of ammonium hydroxide solution.
 - Shiny white metal (lead) is deposited at the cathode and reddish gas (bromine) is collected at the anode.
- d) Each appropriate chemical term carries
- Co-ordinate bond
 - Acid salt
 - Substitution reaction
 - Water of crystallisation
 - Deliquescence
- e) (i) When silver nitrate solution is added to sodium chloride solution a curdy white precipitate of silver chloride is formed, when the same silver nitrate solution is added to sodium nitrate solution no visible change occurs.
- (ii) Hydrogen chloride gas gives dense white fumes with ammonia gas, whereas no visible change occurs with hydrogen sulphide and ammonia gas. [or]

Hydrogen sulphide gas forms a shiny black ppt with lead acetate solution, hydrogen chloride gas forms a white precipitate with lead acetate solution.

- (iii) Ethene gas decolourises brown coloured bromine water solution. Ethane retains the brown colour of the bromine water solution.
- (iv) Calcium nitrate forms a white precipitate with sodium hydroxide solution, in excess the white ppt remains the same. Zinc nitrate solution forms a white ppt with sodium hydroxide solution, with excess it forms a clear solution.

Or

On addition of ammonium hydroxide solution to each of the solutions – No precipitate formed with calcium nitrate and white precipitate formed with zinc nitrate which dissolves in excess.

- (v) Carbon dioxide gas has no change with acidified potassium dichromate solution, whereas sulphur dioxide gas turns orange coloured acidified potassium dichromate solution green.

f) Each most appropriate option carry

- (i) – D (fluorine)
- (ii) - B (ammonium chloride)
- (iii) - C (They undergo both substitution as well as addition reactions)
- (iv) - A (liquid carbon tetra chloride)
- (v) - A (carbon monoxide)
- (vi) - C Zinc oxide)
- (vii) - B (oxidising agent)
- (viii) - B (Ammonium nitrite)
- (ix) - C (they are insoluble in water)
- (x) - C (Bronze)

g) (i) 2 volume of butane require 13 volumes of oxygen

90 dm³ butane requires $\frac{90 \times 13}{2}$ i.e. 585 dm³ of Oxygen.

- (ii) Gram molecular weight= 2 x VD
= 2x8=16g

Volume occupied by 16g of the gas at STP= 22.4dm³

Therefore volume occupied by 24g = (24 x22.4)÷16 = 33.6dm³

- (iii) According to Avogadro's hypothesis equal volumes of all gases under the same conditions of temperature and pressure contain the same number of molecules.

Nitrogen gas would contain X molecules.

Question 2

(a)

Group number	IA 1	IIA 2	IIIA 13	IVA 14	VA 15	VIA 16	VIIA 17	0 18
2 nd period	Li		D			O	J	Ne
	A	Mg	E	Si		H	M	
	R	T	I		Q	u		y

- In this table H does not represent hydrogen.
- Some elements are given in their own symbol and position in the periodic table.
- While others are shown with a letter.

With reference to the table answer the following questions:

- (i) Identify the most electronegative element. [1]
- (ii) Identify the most reactive element of group 1. [1]
- (iii) Identify the element from period 3 with least atomic size. [1]
- (iv) How many valence electrons are present in Q? [1]
- (v) Which element from group 2 would have the least ionization energy? [1]
- (vi) Identify the noble gas of the fourth period. [1]
- (vii) In the compound between A and H what type of bond would be formed and give the molecular formula for the same. [2]
- (b) Compare the compounds carbon tetrachloride and sodium chloride with regard to solubility in water and electrical conductivity. [2]

Examiners' Comments

- (a) Despite clear instructions being given to use the letters mentioned in the table, candidates identified the element instead of choosing the correct option from among the given elements.
- (i) Chlorine was the occasional incorrect answer.
- (ii) & (iii) Most candidates answered correctly.
- (iv) Some wrote the electronic configuration 2,8,5 instead of valence electrons
- (v) Mg incorrectly selected.
- (vi) Argon instead of y.
- (vii) The common error was H_2A or AH . Some candidates wrote Na_2S without specifying. A was Na and H was S.
- (b) Candidates erroneously stated carbonate-trichloride to be a poor conductor of electricity and partially soluble in water or soluble in water.

Suggestions for teachers

- Insist on students reading instructions carefully and give adequate practice on such type of exercises.
- Highlight the difference clearly between electronic configuration, valence electrons and valency.
- Ensure instructions are carefully read and adequate practice is given on such type of exercises.
- Point the difference clearly between electronic configuration, valence electrons and valency.
- Specify the major differences in the arrangements of electrons across a period and down a group and thus help in understanding the nature of electrostatic force that exists within an atom. If students are well versed with

the various terms such as ionization energy, electrons affinity then understanding the trends in these properties across a period and down a group will be easier.

- Ensure students relate the valency to the group in which the element exists and use it to write the formula correctly.
- Clarity of thought over the concept of electrolyte and non-electrolyte can be brought about by enumerating a number of examples after explaining the concept. Instruct students on learning the differences in properties of covalent and ionic compounds with reasons.

MARKING SCHEME

Question-2

- a) (i) The most electronegative element is J
 (ii) most reactive element is R
 (iii) The element with the least atomic size of period 3 is M
 (iv) Q has 5 valence electrons
 (v) T would have the least ionization energy
 (vi) The noble gas is y of the fourth period
 (vii) It would be an ionic bond as A is a metal of group 1 and H is a non metal of group 16 with valency 2.
 Molecular formula is represented as A_2H
- b) Each comparison of the properties carry [1] mark

Carbon tetra chloride	Sodium chloride
Does not conduct electricity in any state	Conducts electricity in the molten and aqueous state
Insoluble in water	Soluble in water

Question 3

- (a) Choosing the substances from the list given below, write balanced chemical equations for the reactions which would be used in the laboratory to obtain the following salts:

Dilute Sulphuric acid

Copper

Copper(II) carbonate

Iron

Sodium carbonate

Sodium

Sodium chloride

Zinc nitrate

- (i) Sodium sulphate
- (ii) Zinc carbonate
- (iii) Copper(II) sulphate
- (iv) Iron(II) sulphate.

[4]

(b) State two **relevant** observations for each of the following:

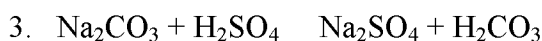
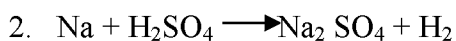
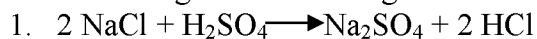
- (i) Ammonium hydroxide solution is added to copper (II) nitrate solution in small quantities and then in excess.
- (ii) Ammonium hydroxide solution is added to zinc nitrate solution in minimum quantities and then in excess.
- (iii) Lead nitrate crystals are heated in a hard glass test tube.

[6]

Examiners' Comments

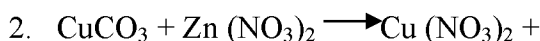
(a) Only reactions feasible in the lab were to be used.

(i) The following were the wrong choices made:



(ii) 1. $\text{Na}_2\text{CO}_3 + \text{ZnNO}_3 \longrightarrow \text{NaNO}_3 + \text{ZnCO}_3$

(incorrect formula)



(iii) $\text{Cu} + \text{dil H}_2\text{SO}_4 \longrightarrow \text{CuSO}_4 + \text{H}_2$ (not possible) as Cu cannot displace H ZnCO₃ insoluble.

(iv) Answered correctly by most candidates. A few however wrote the formula of Iron Sulphate as Fe₂SO₄.

(v) Most candidates answered this part of the question correctly.

(b) (i) and (ii) offered a repeated error in omitting the word ppt and instead writing solution.

Another noticeable error was not mentioning the end result i.e whether ppt was soluble or not in excess reagent.

(ii) The names of the products were listed instead of specifying the observations. A few candidates stated only one observation. Others failed to write the correct colour of the residue.

Suggestions for teachers

- Discuss the various methods of preparation of salts with an emphasis on why certain combinations are not allowed nor possible
- Guide students on preparing a solubility chart of salts as a ready reckoner so that they retain the information.
- Explain that whenever a carbonate is treated with an acid, CO₂ generally escapes as a brisk effervescence. Hence it would be wrong to write H₂CO₃ as a product. Students need to be given regular tests or writing equations and balancing them.
- During regular practical work emphasis must be to check on the colour of the ppt and note its solubility in excess of the reagent. Objective tests based on practical work will help students to analyse and infer correctly during dry heating tests.
- Emphasize on noting the colour / odour of gases evolved as well as that of the residue.
- If a gas is colourless such as O₂, students need to state the test for the gas as a part of the observation.

MARKING SCHEME

Question - 3

- a) (i) $\text{Na}_2\text{CO}_3 + \text{H}_2\text{SO}_4 \longrightarrow \text{Na}_2\text{SO}_4 + \text{CO}_2 + \text{H}_2\text{O}$
 (ii) $\text{Na}_2\text{CO}_3(\text{aq}) + \text{Zn}(\text{NO}_3)_2(\text{aq}) \longrightarrow \text{ZnCO}_3(\text{s}) + 2\text{NaNO}_3(\text{aq})$
 (iii) $\text{CuCO}_3 + \text{H}_2\text{SO}_4 \longrightarrow \text{CuSO}_4(\text{aq}) + \text{CO}_2 + \text{H}_2\text{O}$
 (iv) $\text{Fe} + \text{H}_2\text{SO}_4 \longrightarrow \text{FeSO}_4(\text{aq}) + \text{H}_2$
- b) (i) A **pale blue** precipitate is formed which with excess of ammonium hydroxide solution forms an **inky blue** solution.
 (ii) **Dirty white** precipitate of Zinc hydroxide is formed in minimum ammonium hydroxide which in excess forms a **clear solution**.
 (iii) **Crackling sound** is produced; **reddish brown** nitrogen dioxide gas is produced and forms a **yellow residue** of lead (II)oxide which fuses with glass.
 Oxygen gas which rekindles a glowing splint is produced.

Question 4

- (a) Copper sulphate solution is electrolysed using copper electrodes.

Study the diagram given below and answer the question that follows:



Copper(II) Sulphate Solution

- (i) Which electrode to your left or right is known as the oxidising electrode and why? [2]
 (ii) Write the equation representing the reaction that occurs. [1]
 (iii) State two appropriate observations for the above electrolysis reaction. [2]
- (b)

	X	Y
Normal Electronic Configuration	2,8,7	2,8,2
Nature of oxide	Dissolves in water and turns blue litmus red	Very low solubility in water. Dissolves in hydrochloric acid
Tendency for oxidising and reducing reactions	Tends to oxidise elements and	Tends to act as a reducing agent

	compounds	
Electrical and Thermal conductivity	Very poor electrical conductor Poor thermal conductivity	Good Electrical conductor Good Thermal conductor
Tendency to form alloys and amalgams	No tendency to form alloys	Forms alloys

Using the information above, complete the following:

- (i) _____ is the metallic element.
- (ii) Metal atoms tend to have a maximum of _____ electrons in the outermost energy level.
- (iii) Non-metallic elements tend to form _____ oxides while metals tend to form _____ oxides.
- (iv) Non-metallic elements tend to be _____ conductors of heat and electricity.
- (v) Metals tend to _____ electrons and act as _____ agents in their reactions with elements and compounds.

[5]

Examiners' Comments

- (a) (i) Errors committed in selecting the right electrode as well as in expressing the basis of oxidizing property.
- (ii) Many candidates made errors in writing ionic equations such as

$$\text{Cu}^{2+} - 2e^{-} \rightarrow \text{Cu}$$
Or
$$\text{Cu} + 2e^{-} \rightarrow \text{Cu}^{2+}$$
Or
$$\text{Cu}^{2+} + 2e^{-} \rightarrow \text{Cu}$$
- (iii) Some candidates made no observations on the colour of the deposit at the cathode. A few stated that the colour of the solution fades contrary to the actual observation. The gain / loss in weight did not match with the electrode mentioned in some of the answers
- (b) Majority of candidates answered these parts (i) to (v) correctly. Only a few candidates made errors in selecting the type of agents in (v)

Suggestions for teachers

- Stress on conceptual understanding while teaching electrolysis.
- Instruct students that ionic equations need to be balanced. w.r.t charge also. Besides explaining the reactions occurring at the electrodes during electrolysis, the results / observations need to be enumerated.
- Oxidation / reduction on the basis of loss / gain of e⁻ respectively needs to be addressed from time to time so that students are able to apply these concepts to various situations.

MARKING SCHEME**Question-4**

- a) (i) The electrode towards the left is known as the oxidising electrode, this electrode is known as the anode. At the anode the anions lose their electrons and get discharged as neutral molecules.
- (ii) Here copper electrode being an active electrode loses electrons and become Cu^{2+} ions.
At the anode
 $\text{Cu} \longrightarrow \text{Cu}^{2+} + 2\text{e}^-$
- (iii) Copper being an active electrode loses electrons become positively charged copper ions and go into the electrolyte, blue colour of copper sulphate solution is retained. The size of the red coloured copper anode decreases with time.
- b) (i) **Y**
- (ii) three
- (iii) Acidic, basic
- (iv) poor
- (v) lose, reducing

Question 5

- (a) Give balanced equations for each of the following:
- (i) Reduction of hot Copper(II) oxide to copper using ammonia gas.
- (ii) Oxidation of carbon with concentrated nitric acid.
- (iii) Dehydration of concentrated sulphuric acid with sugar crystals [3]

- (b) Copy and complete the following table relating to important industrial process: [3]

Name of the process	Temperature	Catalyst	Equation for the catalyzed reaction
Haber's process			

- (c) The following questions relate to the extraction of aluminium by electrolysis:
- (i) Name the other aluminium containing compound added to alumina and state its significance.
- (ii) Give the equation for the reaction that takes place at the cathode.
- (iii) Explain why is it necessary to renew the anode periodically. [4]

Examiners' Comments

- (a) Candidates who committed errors in this sub question either failed to write the correct reactants / products or did not balance the equations correctly.
- (b) Most candidates answered this part of the question correctly.
- (c)(i) Fluorspar was the compound incorrectly mentioned as instructions were not read carefully.
- (ii) Correctly answered by most candidates but a few made errors by reversing the ionic equations i.e. $\text{Al} - 3\text{e}^- \longrightarrow \text{Al}^{3+}$.
- (iii) Most candidates answered correctly. Few however stated that anodes get corroded or decay.

Suggestions for teachers

- Failure in writing equations correctly is largely due to rote memorisation. Breaking up of the reaction into steps and then adding them up will help students in writing equations correctly.
- Explain the steps in metallurgy clearly, highlighting the role of the substances added at different stages of the extraction. Revision at regular intervals is essential as factual matter is easily forgotten.
- Ensure students understand how the discharge of ions takes place at the electrodes.
- Summarise the essential facts in the electrolytic extraction that are different from normally expected results in an electrolytic process.

MARKING SCHEME

Question - 5

- a) (i) $3\text{CuO} + 2\text{NH}_3 \longrightarrow 3\text{Cu} + 3\text{H}_2\text{O} + \text{N}_2$
- (ii) $\text{C} + 4\text{HNO}_3 \longrightarrow \text{CO}_2 + 2\text{H}_2\text{O} + 4\text{NO}_2$
- (iii) $\text{C}_{12}\text{H}_{22}\text{O}_{11} \xrightarrow{\text{conc. H}_2\text{SO}_4} 12\text{C} + 11\text{H}_2\text{O}$
- b) **Haber's process:** Temperature : $450^\circ\text{C} - 500^\circ\text{C}$.
Catalyst: iron Equation: $\text{N}_2 + 3\text{H}_2 \longrightarrow 2\text{NH}_3$
- c) (i) Cryolite or Na_3AlF_6 . Lowers the melting point of Alumina/ Increases the conductivity of the mixture.
- (ii) $\text{Al}^{3+} + 3\text{e}^- \longrightarrow \text{Al}$
- (iii) The O_2 formed at the anode reacts with graphite anode and hence gets consumed.

Question 6

- (a) Give balanced equations for the laboratory preparations of the following organic compounds:
- A saturated hydrocarbon from iodomethane.
 - An unsaturated hydrocarbon from an alcohol.
 - An unsaturated hydrocarbon from calcium carbide.
 - An alcohol from ethyl bromide.

[4]

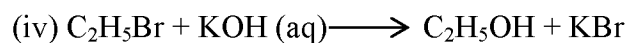
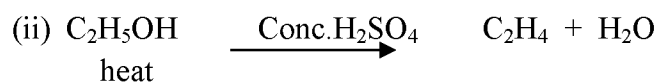
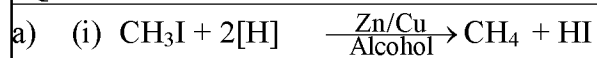
- (b) Give the structural formulae for the following:
- An isomer of n-butane.
 - 2-propanol.
 - Diethyl ether. [3]
- (c) Give reasons for the following:
- Methane does not undergo addition reactions, but ethene does.
 - Ethyne is more reactive than ethane.
 - Hydrocarbons are excellent fuels. [3]

Examiners' Comments

- (a) (i) Reactants and products were correctly stated however the essential conditions were omitted by many candidates, hence marks were scored in parts (i) & (ii).
- (ii) The product Ca(OH)_2 was replaced by CaO by few candidates.
- (iv) Aqueous KOH was incorrectly substituted by alcoholic KOH
- (b) Errors made by candidates included the following:
- Drew only the condensed formulae and not the detailed structural formulae.
 - Some represented 2-propanol by the structure of butanol
 - Diethyl ether was not known to a vast majority of candidates.
- (c) (i) Most candidates failed to present the essential features of both compounds and focused on only 1 compound.
- (ii) Incomplete answers observed by not referring to both compounds by a few candidates.
- (iii) Most candidates were unaware about the calorific value of a fuel and the reasons for hydrocarbon being excellent fuels.

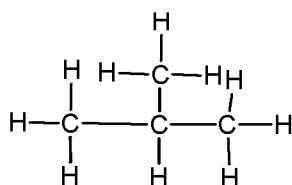
Suggestions for teachers

- Students may be asked to prepare a table listing the equations for tab. Preparation of various organic compounds at a glance with their essential conditions.
- Insist on written practice especially where organic chemistry is concerned.
- Highlight the differences in the products formed on changing the reagent from aqueous to alcoholic KOH. with the fact that one is a substitution reaction while the other is an elimination reaction.
- Pay adequate attention to IUPAC nomenclature and structures of organic compounds followed by drill work. Students invariably do not position the bonds correctly especially between carbon, carbon or not well versed with all the functional groups and these are areas needed to focus on.
- Students must be conversant with the various functional groups and the association between addition reaction and unsaturation or substitution reaction and saturated compounds (all single bonds)
- Practical uses of compounds studied would make learning chemistry more meaningful. Students must be able to relate subject matter to daily life.

MARKING SCHEME**Question-6**

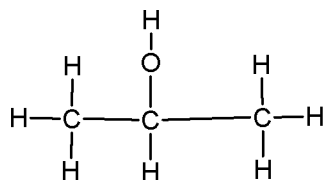
b) each relevant structure carry [1] mark

(i)



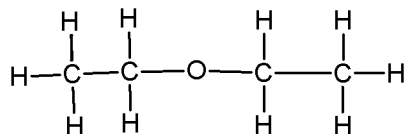
Isobutane

(ii)



2-propanol

(iii)



Diethylether

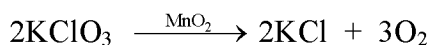
c) Give reasons

(i) Methane is a saturated hydrocarbon it can only undergo substitution reaction whereas ethene is an unsaturated hydrocarbon with a double bond it can undergo addition reaction.

- (ii) Ethyne is an unsaturated hydrocarbon with a triple covalent bond hence it is more reactive than ethene.
- (iii) Hydrocarbons on combustion with air produces carbon dioxide and water vapour and large amount of heat energy, hence they are good fuels.

Question 7

- (a) O₂ is evolved by heating KClO₃ using MnO₂ as a catalyst



- (i) Calculate the mass of KClO₃ required to produce 6.72 litre of O₂ at STP. [atomic masses of K = 39, Cl = 35.5, O = 16] . [2]
 - (ii) Calculate the number of moles of oxygen present in the above volume and also the number of molecules. [2]
 - (iii) Calculate the volume occupied by 0.01 mole of CO₂ at STP. [1]
- (b) Identify the following substances which are underlined:
- (i) An alkaline gas which produces dense white fumes when reacted with hydrogen chloride gas.
 - (ii) An acid which is present in vinegar.
 - (iii) A gas which does not conduct electricity in the liquid state but conducts electricity when dissolved in water.
 - (iv) A dilute mineral acid which forms a white precipitate when treated with barium chloride solution.
 - (v) The element which has the highest ionization potential. [5]

Examiners' Comments

- (a) The following errors were made by candidates:
- (i) Molecular mass of KClO₃ was wrongly calculated.
 - (ii) Three moles of O₂ were not taken into consideration and only 22.4 l used in the calculation.
 - (iii) Substitution was incorrect in the calculation.
- (b) Most candidates answered correctly in parts (i), (ii), (iii), (iv).

Suggestions for teachers

- Establish relations between number of molecules, mole, molar mass and molar volume. Frequent testing of these concepts will help build confidence. The students may then be explained the molar relationship from the chemical equation and then trained to convert to mass or volume as the requirement in the numerical.

MARKING SCHEME

Question-7

- a) (i) According to the equation
3 x 22.4 litres of oxygen gives a mass of 2 x 122.5g of KClO_3
Therefore 6.72 litres of oxygen would produce a mass of KClO_3
 $(6.72 \times 2 \times 122.5) \div (3 \times 22.4) = 24.5\text{g}$
- (ii) No of moles of oxygen = $6.72 \div 22.4$
= 0.3 moles
No. of molecules = $0.3 \times 6.02 \times 10^{23}$
= 1.806×10^{23}
- (iii) Volume occupied by 0.01 mole of CO_2 at STP = $0.01 \times 22.4 = 0.224$ litre.
- b) (i) Ammonia
(ii) Acetic acid
(iii) Hydrogen chloride/ ammonia
(iv) Dilute sulphuric acid
(v) Helium.

Topics/Concepts that candidates found difficult and/or confusing:

- Observations based on practical chemistry
- Co-ordinate bonding.
- Methods of salt preparation
- Balancing of chemical equations.
- Application of the mole concept.
- Chemical tests to distinguish between compounds.
- Organic Chemistry – the IUPAC nomenclature and structural formulae.
- Certain scientific terms and their applications.
- Basics of Electrolysis.

Suggestions for candidates:

- Pay special attention to colour and the other relevant observations obtained from Practical Work in Chemistry.
- Ensure every equation written is balanced.
- While practising numericals ensure the stepwise working habit is developed.

- Study Alloys in a tabulated form identifying the main metal and other metals and the property specific to alloy.
- Confusing terms / concepts are to be dealt with by making a comparative study.
- Read questions carefully and practice application based questions.
- Read the rules of IUPAC nomenclature and practice drawing the structures of organic compounds.
- Details of preparations of compounds may be tabulated along with specific conditions and learnt.
- Learn the laws, principles and definitions related to different topics accurately and be aware of how and where to apply them also.
- Avoid selective study. Give importance to each part of the syllabus and pay attention to every detail of the topic.
- Practice solving the previous year's Board papers to gain insight into the answering of Chemistry Board papers.

BIOLOGY
SCIENCE Paper - 3

III. ANALYSIS OF PERFORMANCE

Question 1

- (a) Name the following:
- (i) The cell body of a nerve cell.
 - (ii) The waxy layer on the epidermis of the leaf meant to reduce transpiration.
 - (iii) A non-biodegradable pesticide.
 - (iv) The physical expression of genes in an individual.
 - (v) Knot-like mass of blood capillaries inside the Bowman's capsule. [5]
- (b) State the exact location of the following:
- (i) Chloroplast.
 - (ii) Incus.
 - (iii) Corpus callosum.
 - (iv) Guard cells.
 - (v) Pulmonary semilunar valve. [5]
- (c) Given below are six sets with four terms each. In each set a term is an odd one and cannot be grouped in the same category to which the other three belong. Identify the odd one in each set and name the category to which the remaining three belong. The first one has been done as an example:
- Example: Fructose, Sucrose, Glucose, Calcium.
- Odd term : Calcium
- Category : Carbohydrates.
- (i) Carbonic acid, Acetic acid, benzoic acid, boric acid.
 - (ii) Saliva, bile, sweat, tears.
 - (iii) Cretinism, Myxedema, Simple goitre, Acromegaly.
 - (iv) Sneezing, coughing, blinking, typing.
 - (v) Semicircular canals, Cochlea, tympanum, utriculus. [5]

- (d) Match the items in Column A with that which is most appropriate in Column B. Rewrite the matching pair.

Column A	Column B
(1) Testis	(a) Kidney
(2) Poliomyelitis	(b) Water vapour
(3) Transpiration	(c) Prostate gland
(4) Clotting of blood	(d) Iron
(5) Uriniferous tubule	(e) Uterus
	(f) Gonad
	(g) Salk's vaccine
	(h) Water droplet
	(i) Calcium
	(j) TAB vaccine

[5]

- (e) Choose the correct answer from the four options given below:

- (i) The cell component visible only during cell division:

- A. Mitochondria
- B. Chloroplast
- C. Chromosome
- D. Chromatin.

- (ii) Pulse wave is mainly caused by the:

- A. Systole of atria
- B. Diastole of atria.
- C. Systole of the left ventricle.
- D. Systole of the right ventricle.

- (iii) The recessive gene is one that expresses itself in:

- A. Heterozygous condition
- B. Homozygous condition
- C. F₂ generation
- D. Y-linked inheritance.

- (iv) A gland which secretes both hormone and enzyme is the:

- A. Pituitary
- B. Pancreas
- C. Thyroid
- D. Adrenal

(v) The ventral root ganglion of the spinal cord contains cell bodies of the:

- A. Motor neuron
- B. Sensory neuron
- C. Intermediate neuron
- D. Association neuron.

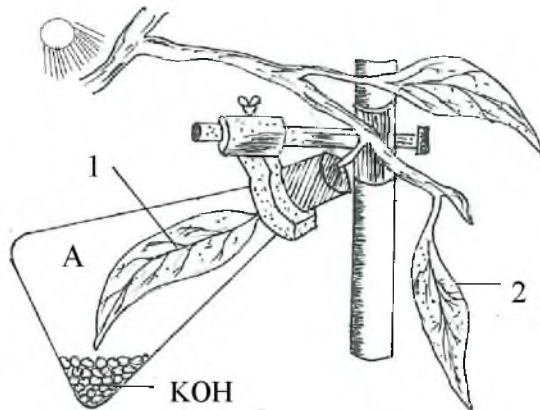
[5]

(f) Given below is an example of certain structures and their special functional activities. For example: Eye and vision. On a similar pattern complete the following:

- (i) Neutrophils:
- (ii) Ureter:
- (iii) Neurotransmitters:
- (iv) Iris of the eye:
- (v) Placenta:

[5]

(g) The figure given below represents an experiment to demonstrate a particular aspect of photosynthesis. The alphabet 'A' represents a certain condition inside the flask.



- (i) What is the aim of the experiment?
- (ii) Identify the special condition inside the flask.
- (iii) Name an alternative chemical that can be used instead of KOH.
- (iv) In what manner do the leaves 1 and 2 differ at the end of the starch test?

[5]

(h) Given below are five groups of terms. In each group arrange and rewrite the terms in the correct order so as to be in a logical sequence.

For example:

Question: Implantation, Parturition, Ovulation, Gestation, Fertilization.

Answer : Ovulation, Fertilization, Implantation, Gestation, Parturition.

- (i) Spongy cells, Upper epidermis, Stoma, Palisade tissue, Substomatal space.
- (ii) Spinal cord, Motor neuron, Receptor, Effector, Sensory neuron.
- (iii) Endodermis, Cortex, Soil water, Xylem, Root hair.
- (iv) Metaphase, Telophase, Prophase, Anaphase, Cytokinesis.
- (v) Intestine, Liver, Intestinal artery, Hepatic Vein, Hepatic Portal Vein.

[5]

Examiners' Comments

- (a) (i) Most candidates wrote correct answers. 'Axon' was written as an occasional incorrect answer instead of 'Cyton'
- (ii) Majority of candidates answered correctly however a few were unsure of their content and did not attempt the question.
- (iii) Most candidates were unaware of what pesticides were and wrote incorrect answers like glass, steel etc.
- (iv) Most candidates wrote the correct answer. However, a few were confused between 'Phenotype' and Genotype.
- (v) Correct answers were written by most candidates. A few however lost marks for having spelt the term 'glomerulus' as 'golmerulus'.
- (b) (i) Most candidates were unable to specify the exact location. They stated 'in plant Cells' / 'in epidermal cells of leaves' with no reference to green cells of plants.
- (ii) Some candidates wrote 'inner ear' instead of 'middle ear'. A few did not know the difference between 'ear and year'. Many candidates used common names like 'between Hammer and Stirrup' which otherwise have different meanings.
- (iii) Most candidates wrote the correct answer. Some however were unsure and stated 'in the brain'.
- (iv) Most candidates wrote the correct answer. A few lacked expression and wrote 'in the Stomata' / 'between epidermal layers'. Some candidates mentioned between Epithelial cells' instead of 'Epidermal cells'.
- (v) Only a few candidates were able to write the correct location. Most however were confused with the right and the left side of the heart. A few mentioned 'inside Pulmonary Artery' instead

Suggestions for teachers

- Train students to use biological/ technical terms rather than common names. Insist on the correct spelling of biological terms.
- Advise students to read the statements carefully and understand it properly before writing the answer.
- Give a clear and logical explanation of the structure of a leaf while teaching the lesson on 'Transpiration'
- Stress on the importance of prepositions like in, on, between, around; while stating the exact location of structures and organs.
- Importance of 'Calcium ions' in the process of clotting of blood to be stressed upon.
- Explain the structure and function of Malpighian capsule and ensure regular practice of diagrams.
- Guide students to clearly differentiate between Antiseptic and Disinfectant, Simple and Conditioned reflex, Transpiration and Guttation, Phenotype and Genotype.
- Train students to draw a simplified sketch of the heart to learn the right and left of the heart, position of valves and the blood vessels entering and leaving the heart.

of at the beginning or entrance of Pulmonary Artery'.

- (c) (i) Most candidates were confused because neither acetic acid nor carbonic acid are Antiseptics.
- (ii) Candidates were unsure of the answer as all the terms were Germ-killing body secretions.
- (iii) Most candidates wrote the correct answer. However a few failed to write the correct Category and vaguely mentioned 'disorders of thyroid gland'.
- (iv) Most candidates were casual in approach and did not mention the type of reflex action, though the odd term was correct.
- (v) Most candidates were able to write correct answers. Some however were unsure of the parts of the ear and mentioned 'Utriculus' as the odd term and just 'ear' for the category.
- (d) (i) Most candidates were able to write the correct pair. Those who were unsure of the parts of male reproductive system paired 'Testis' with 'Prostate gland'.
- (ii) Most candidates answered correctly as no error was observed.
- (iii) Correct pairing was done by most candidates. A few were confused with 'Transpiration' and 'Guttation' and hence paired 'Transpiration' with 'water droplets'.
- (iv) Most candidates wrote the correct pair. Some were not sure of the mineral required for clotting of blood and hence chose 'Iron' instead of 'Calcium'.
Most candidates wrote the correct matching pair.
- (e) (i) Most candidates wrote the correct answer. A few were unable to distinguish between 'Chromosome' and 'Chromatin' and made the wrong choice.
- (ii) Most candidates wrote the right choice. A few who were not sure of the right and left side of the heart chose 'systole of right ventricle' instead of 'systole of the left ventricle'.
- (iii) Candidates were confused as there were three correct choices. The recessive gene can express itself in 'Homozygous condition', 'F₂ generation' and 'Y-linked inheritance'.
- (iv) Correctly answered by most candidates.
- (v) Most candidates were unaware because there is no 'ventral root ganglion' of spinal cord.
- (f) (i) Most candidates were confused with the function of the different types of WBCs and wrote 'Production of Antibodies'/'Production of Antitoxins' instead of 'Phagocytosis' for Neutrophils.
- (ii) Some candidates failed to answer correctly as they did not write the idea of 'from and to' for the transport of urine. They merely stated 'carries urine'.
- (iii) Many candidates failed to score as the answer was incomplete. They did not explain the transmission of impulse across synapse.

Suggestions for teachers

- With the help of a flow chart make the students practice the nervous pathway of reflex action.
- Advise students to take Practical work seriously to enable them to identify the factors necessary for Photosynthesis.
- Give importance to 'Starch Test' at the end of an experiment on Photosynthesis.
- Students must know the change in colour of leaf when starch is present or absent on adding Iodine solution.
- Students must know the change in colour of leaf when starch is present or absent on adding Iodine solution.
- Display the transverse section of a root and explain with the help of a flow chart the movement of water absorbed by root hairs.
- Award marks only for complete and relevant explanations during school examinations.

- (iv) The concept of regulating the size of the pupil for entry of light inside the eyes was missing. Instead most candidates wrote 'allows light to enter the eye'.
- (v) Most candidates wrote the correct answer. A few lost marks as they wrote just 'transports food' without emphasizing on the process of diffusion of named substances to and from the mother and foetus.
- (g) (i) Most candidates answered correctly. A few wrote 'Sunlight' as the factor instead of 'Carbon dioxide'.
- (ii) Answered correctly by most candidates.
- (iii) Most candidates wrote the correct answer. Some however did not state the alternative chemical for KOH.
- (iv) The change in colour of leaf and the presence and absence of starch in the leaves was not written completely by majority of candidates. Some only wrote on one leaf and did not explain the other due to oversight.
- (h) (i) A large number of candidates failed to score as the sequence of terms were wrong.
- (ii) Correctly answered by most candidates.
- (iii) Most candidates failed to score as they were unsure of the regions in a transverse section of the root.
- (iv) Most candidates answered the question correctly.
- (v) Only a few candidates wrote the sequence correctly as there is no specific 'intestinal artery' among the blood vessels.

MARKING SCHEME

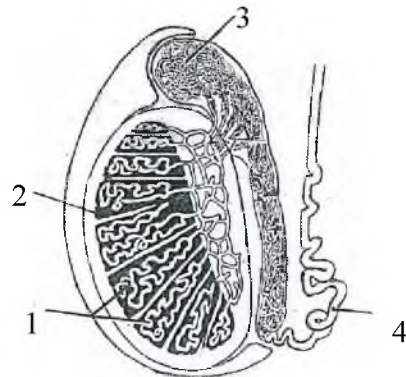
Question - 1

- (a) (i) Perikaryon/ cyton
- (ii) Cuticle
- (iii) DDT, BHC (any one)
- (iv) Phenotype
- (v) Glomerulus/Glomerular Capillaries
- (b) (i) In the cytoplasm (operative) of green plant cell (operative).
- (ii) Inside the human middle ear (operative) between Malleus and stapes (operative) .
- (iii) Seen between two cerebral hemisphere (operative) in human brain.
- (iv) Seen in between the epidermal cells (operative) of a leaf.
- (v) Located at the opening (operative) of the right ventricle into the pulmonary artery (operative).
- (c) (i) Mark awarded.
- (ii) Mark awarded
- (iii) Odd term : Acromegaly; c:c – Disease condition due to hypothyroidism.
- (iv) Odd term : Typing; category – Simple /Natural reflexes.
- (v) Odd term : Tympanum; category: parts of human internal/inner ear /parts of membranous labyrinth.
- (d) (i) Testes – Gonad / 1 - f
- (ii) Poliomyelitis - Salk's vaccine / 2- g
- (iii) Transpiration – water vapour / 3 - b
- (iv) Clotting of blood – calcium / 4 - i
- (v) Uriniferous tubule – kidney/ 5 - a
- (e) (i) Chromosome/C
- (ii) Systole of left ventricle

- (iii) Mark awarded.
- (iv) Pancreas / B
- (v) Mark awarded.
- (f) (i) Neutrophils : Phagocytosis /engulf bacteria.
- (ii) Ureter: passes the urine produced in the kidney to the urinary bladder.
- (iii) Neurotransmitters: Transfer the impulse from the terminal end of an axon to the dendrites of the adjacent neuron.
- (iv) Iris of the eye: Regulates the size of the pupil (operative) so as to control the amount of light entering the eyes.
- (v) Placenta: Diffusion of Carbon dioxide urea from foetus to mother, acts as an endocrine gland. Diffusion of O₂ / nutrients from mother to foetus.
- (g) (i) To prove that CO₂ is essential for photosynthesis.
- (ii) There is no carbon dioxide inside the flask.
- (iii) Soda lime or lime water (any one)
- (iv) At the end of starch test Leaf 1 turns brownish which indicates the absence of starch. Leaf 2 turns bluish black which indicates the presence of starch.
- (h) (i) Upper epidermis, palisade tissue, spongy cells, substomatal space, stoma.
- (ii) Receptor, sensory neuron, spinal cord, motor neuron, effector.
- (iii) Soil water, Root hair, Cortex, Endodermis, xylem.
- (iv) Prophase, Metaphase, Anaphase, Telophase, Cytokinesis.
- (v) Mark awarded.

Question 2

- (a) Given below is a diagram of the lateral section of a testis of a man. Study the same and answer the questions that follow:



- (i) Label the parts numbered 1 to 4 of the diagram.
- (ii) State the functions of the parts labelled 1 and 3.
- (iii) What is the significance of the testes being located in the scrotal sac outside the abdomen?
- (iv) What is the role played by the inguinal canal?
- (v) What is semen?

[5]

- (b) Give the biological / technical terms for the following:
- (i) Chemicals found in the blood which act against antigens.
 - (ii) A constituent that causes pollution.
 - (iii) The onset of menstruation in a young girl.
 - (iv) Structure which connects the placenta with the foetus.
 - (v) The fluid present between the layers of meninges.
 - (vi) Permanently open structures seen on the bark of an old woody stem.
 - (vii) The biological process which is the starting point of the food chain.
 - (viii) The change in an organism resulting due to stimulus.
 - (ix) An Antiseptic substance present in tears.
 - (x) A solution in which the relative concentration of water molecules and the solute on either side of the cell membrane is the same.

[5]

Examiners' Comments

- (a) (i) Most candidates answered correctly. Some made spelling errors and wrote 'Vas difference' for 'Vas deferens' and 'Epididamis' for 'Epididymis'. A few were not sure of the structure of testis and were unable to label parts 2 and 3.
- (ii) Most candidates wrote the function of part 1 correctly. However, a few who knew the function of Epididymis just mentioned about storage of sperms.
- (iii) Correctly answered by most candidates. A few failed to score as they only stated about lowering the temperature but did not the reason.
- (iv) A few candidates were able to mention the role of 'inguinal canal'. Most candidates however merely stated that 'it allows testis to descend below abdomen'.
- (v) Most candidates did not write the complete answer in mentioning the accessory glands of males. They wrote just 'mixture of sperms'.
- (b)(i) This question was answered correctly by most candidates.
- (ii) Most candidates answered correctly however a few did not read the instructions and wrote examples of pollutants instead of the term 'pollutant'.
- (iii) This question was answered correctly by most candidates.
- (iv) Most candidates answered the question correctly.
- (v) This question was answered correctly by most candidates.
- (vi) Most candidates wrote the correct term. However, some wrote; V, 'Stomata' instead of 'lenticels' as they were not sure of their content.

Suggestions for teachers

- Advise students to read the instructions given in the question carefully before answering.
- While teaching the lesson on Reproductive system, stress on the structure and function of every part.
- Give importance to the male accessory glands and their role in production of semen.
- Train students to know the difference between Stomata, Lenticels and their location in plants.

- (vii) Most candidates wrote the correct term. However, a few wrote 'green plants' for photosynthesis.
- (viii) Many candidates answered correctly. A few however were confused with 'Response' and 'Reflex action',
- (ix) Answered correctly by most candidates. Due to carelessness, some wrote 'lysosomes' instead of 'lysozymes'.
- (x) This question was answered correctly by most candidates.

MARKING SCHEME

Question - 2

- (a)
 - (i) Part 1 – seminiferous tubule
Part 2 – Interstitial cells
Part 3 – Epididymis
Part 4 – Vas deferens / sperm duct (vas deferens = 0)
 - (ii) Function of Part 1 (seminiferous tubule) – Production of sperm - Part 2 – stores the sperms for some days till they mature (operative)
 - (iii) Scrotal sac provides the optimum temperature for the maturation of sperms -
 - (iv) Vas deferens travels upward into the abdomen passing through an inguinal canal /In the embryonic stage, the testes descend into the scrotum through the inguinal canal. (any one point)
 - (v) Mixture of sperms and the secretions from all accessory male reproductive glands or name of glands
- (b)
 - (i) Antibody /immunoglobulins.
 - (ii) Pollutant
 - (iii) Menarche
 - (iv) Umbilical Cord
 - (v) Cerebrospinal fluid
 - (vi) Lenticels
 - (vii) photosynthesis
 - (viii) Response
 - (ix) Lysozymes (lysosomes = 0)
 - (x) Isotonic /Isoosmotic solution

Question 3

- (a) Draw a diagram of the human eye as seen in a vertical section and label the parts which suit the following descriptions relating to the:
 - (i) photosensitive layer of the eye.
 - (ii) structure which is responsible for holding the eye lens in its position.
 - (iii) structure which maintains the shape of the eye ball and the area of no vision.
 - (iv) anterior chamber seen in front of the eye lens.
 - (v) outer most transparent layer seen in front of the eye ball.

[5]

(b) Differentiate between the following pairs on the basis of what is mentioned within brackets:

- (i) Photolysis and Photophosphorylation. (Definition).
- (ii) Bicuspid valve and Tricuspid valve. (Function)
- (iii) Vasectomy and Tubectomy. (Explain)
- (iv) Cerebrum and Spinal cord. (Arrangement of nerve cells)
- (v) Bowman's capsule and Malpighian capsule. (parts included)

[5]

Examiners' Comments

- (a) Most candidates were unsuccessful in drawing the vertical section of the human eye with a bulge in front of the eyeball and the four concentric circles depicting the 3 layers. Though the descriptions for labeling the diagram was given in the question, candidates labeled other parts which may be factually correct, but did not provide reason to justify their answers. Candidates were confused on the numbering of the labels.. They wrote 'ciliary muscles' for holding the eye lens in position and labeled cornea for conjunctiva.
- (b) (i) The fact that there were many incorrect answers suggests that due importance was not given to the conditions required for Photolysis and Photophosphorylation. Presence of Chlorophyll and sunlight as conditions was lacking in most answers.
- (ii) A general confusion regarding the right and left side of heart was evident in the answers. Too many answers referred to allowing the blood to flow from auricles to ventricles of heart which can also happen due to gravity. What was required was the prevention of a backflow of blood into auricles which was missing.
- (iii) This question was answered correctly by most candidates. A few however were confused as to which surgical method applied to males and which one to females.
- (iv) Majority of candidates failed to write the arrangement of nerve cells in the brain and spinal cord. They explained it in terms of gray and white matter but did not specify which matter lies outside and which one inside.
- (vi) The structure of the question led to confusion in candidates regarding the parts included in Bowman's capsule. However, they were able to score for Malpighian capsule.

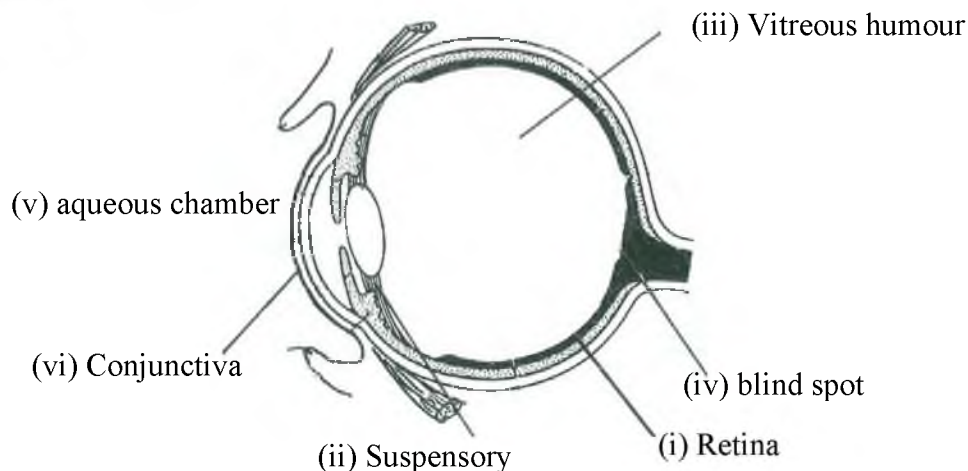
Suggestions for teachers

- Arrangement of cytons and axons in the brain and spinal cord to be given importance.
- Surgical method of contraception to be stressed upon to avoid confusion between Tubectomy and vasectomy
- Construct similar questions in Unit Tests and Term examinations for practice and correct students when errors are committed..
- Give a clear understanding of the functions of structures with regard to transport of substances, laying emphasis on 'from' and 'to' like - Ureter transports urine from kidney to_ urinary bladder.
- Make use of charts, models and interactive smart boards to explain the parts and functions of the eye and ear.

MARKING SCHEME

Question - 3

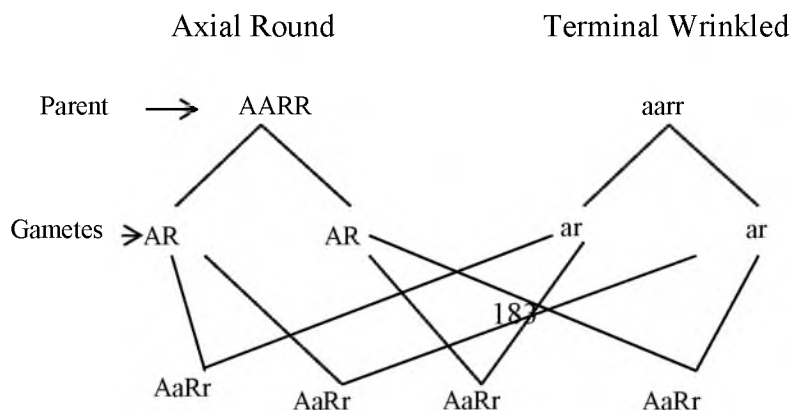
(a)



- (b) (i) Photolysis: Splitting of water molecules in the presence of light energy (operative into hydrogen and hydroxyl / ions taking place during photosynthesis / in green living plant cells. Conversion of ADP into ATP taking place during photosynthesis / in green living plant cells in the presence of light.
- (ii) Bicuspid valve: Prevents the backward flow of blood from left ventricle to left auricle.
Tricuspid valve: Prevents the backward flow of blood from right ventricle to right auricle.
- (iii) Vasectomy - Surgical method of contraception in males in which vas deferens is ligated.
Tubectomy - Surgical method of contraception in females in which oviducts are ligated.
- (iv) Cerebrum - cytons are in the inner grey matter. Axons are in the inner white matter.
Spinal cord - cyton are in the inner grey matter; axons are in the outer white matter.
- (v) Bowman's capsule – cup shaped structure enclosing Glomerulus.
Malpighian Capsule – Bowman's capsule and Glomerulus together is known as malpighian capsule.

Question 4

- (a) Given below is a schematic diagram showing Mendel's Experiment on sweet pea plants having axial flowers with round seeds (AARR) and Terminal flowers with wrinkled seeds (aarr). Study the same and answer the questions that follow:



- (i) Give the phenotype of F_1 progeny.
- (ii) Give the phenotypes of F_2 progeny produced upon by the self- pollination of F_1 progeny.
- (iii) Give the phenotypic ratio of F_2 progeny.
- (iv) Name and explain the law induced by Mendel on the basis of the above observation.

[5]

- (b) Complete the following table by filling in the blanks from 1 to 10 with appropriate terms:

S.No.	Gland	Secretion	Function / Effect on body
1.	Thyroid	<u>1</u>	<u>2</u>
2.	<u>3</u>	Vasopressin	<u>4</u>
3.	<u>5</u>	<u>6</u>	Promotes glucose utilization by the body cells.
4.	Lacrimal gland	<u>7</u>	<u>8</u>
5.	Adrenal medulla	<u>9</u>	<u>10</u>

[5]

Examiners' Comments

- (a) (i) Most candidates wrote the genotype of F_1 generation instead of Phenotype. A few did not know the difference between F_1 and F_2 generation.
- (ii) Candidates appeared unprepared to answer this question due to lack of content and inadequate practice. They failed to score as they did not understand the question.
- (iii) Majority of the candidates answered correctly.
- (iv) Candidates failed to identify the law applied to dihybrid cross. Some mentioned the correct law but failed to explain it. A few wrote all 3 laws as they did not understand the question.
- (b) Majority of candidates answered the question correctly. A few were able to write the name of the gland and its secretion correctly but could not apply their knowledge to the function of the secretion. Some wrote 'communicates emotions' as the main function¹ of tears and failed to secure marks. Some were confused with

Suggestions for teachers

- Train students to understand and state Mendel's laws in simple words, giving importance to operative words. -Stress on the difference between Monohybrid and Dihybrid Cross, F_1 and F_2 generation.
- On the topic of 'Endocrine Glands', train students to draw a tabular column stating the gland, its secretion, function of the hormone and the disorders due to Hypo and Hypersecretion.
- Students must practice a number of examples on Monohybrid and Dihybrid cross using various contrasting characters.

the secretion of Adrenal medulla and wrote cortisones instead of Adrenaline.

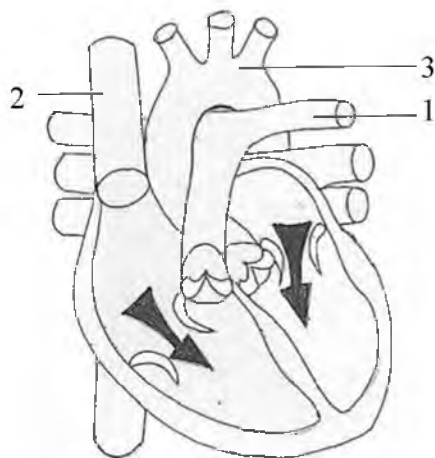
MARKING SCHEME

Question - 4

- (a) (i) All plants have axial flowers with round seeds
(ii) Axial flowers with round seeds.
Axial flowers with wrinkled seeds.
Terminal flowers with round seeds
Terminal flowers with wrinkled seeds
(iii) 9 : 3 : 3 : 1
(iv) Law of independent assortment. When there are two pairs of contrasting characters the distribution of the members of one pair into the gamete is independent of the distribution of the other pair.
- (b) (i) Thyroxine
(ii) Regulates basal metabolism
(iii) Posterior (operative) lobe or pituitary.
(iv) Initiates reabsorption of water from kidney / contraction of blood vessels causing rise of blood pressure. (any one)
(v) Pancreas
(vi) Insulin
(vii) Tears
(viii) Lubricates eye / kills harmful microbes / wash away dust particles/ communicate emotions (any one)
(ix) Adrenaline
(x) Prepares the body for emergency situation/ increases heart beat / increases blood supply to the muscle / more glucose is released into the blood by the liver.

Question 5

- (a) The diagram given below represents the human heart in one phase of its functional activities. Study the same and answer the questions that follow:



- (i) Name the phase.
- (ii) Label the parts 1, 2, and 3
- (iii) Which part of the heart is contracting in this phase? Give a reason to support your answer.
- (iv) Draw well labelled diagrams of part 1 and 2 to show the structural differences between them. [5]
- (b) Give biological reasons for the following:
- (i) The wall of the ventricle is thicker than the auricles.
- (ii) The renal cortex has a dotted appearance.
- (iii) Wooden frames of doors get jammed during the monsoon season.
- (iv) Throat infections can lead to ear infections.
- (v) The hand automatically shows the direction to turn a cycle without thinking. [5]

Examiners' Comments

- (a)(i) Majority of candidates answered correctly. Some were not specific in answering and wrote contraction of heart instead of Auricular Systole and Ventricular Diastole.
- (ii) The difference between Pulmonary artery and Pulmonary vein was not understood by many candidates. Spelling errors were observed in the labelling of the aorta.
- (iii) The first part of the question was answered correctly. However, most candidates failed to provide a proper reason for their answers suggesting a lack of attention to syllabus specifics. They just wrote 'since valves are open' instead of specifying 'Tricuspid' and 'bicuspid valves'.
- (iv) A few candidates could not comprehend the question and drew pulmonary artery and Superior Venacava directly from the question. Others did not show the difference in thickness of muscular layer and the diameter of lumen in artery and vein.
- (b)(i) Most candidates failed to read the question carefully and made references to only the thickness of ventricles and did not reason as to why auricles are thinner.
- (ii) Only a few candidates wrote complete explanations. A majority mentioned the Malpighian/Bowman's Capsule but did not refer to 'Convolved Tubules'.

Suggestions for teachers

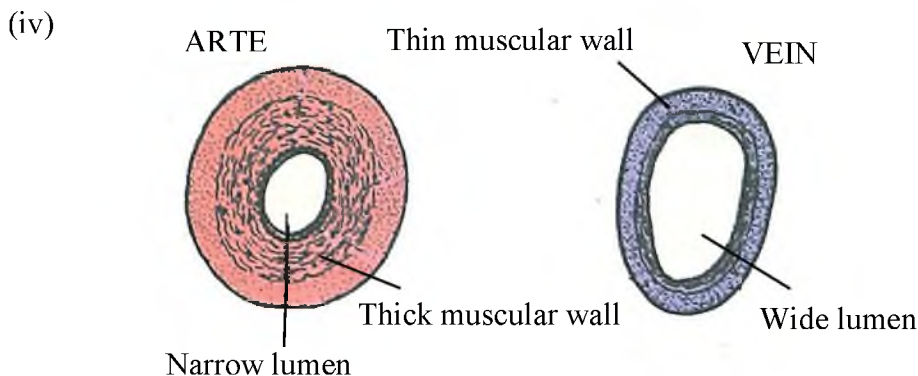
- Attach importance to technical terms for contraction and relaxation of heart.
- Regular practice of diagrams showing cross-sections of artery, vein and capillary. Structural differences to be stressed upon.
- Students must practice the diagram showing vertical section of Kidney. They must know as to why they draw stripes for medulla and dots for cortex.
- Students must be taught to reason out practical examples in daily life related to diffusion, osmosis and imbibition.
- Frame application based questions on reflex actions so that students apply their knowledge to give logical reasons.

- (iii) The two concepts expected in this answer namely- imbibition; and swell/ increase in size were written by most candidates. A few who wrote about Endosmosis lost marks.
- (iv) Answered correctly by most candidates. A few failed to mention 'Eustachian Tube'.
- (v) Correctly answered by most candidates. On the other hand, there were many who did not relate conditioned reflex to previous learning of experience.

MARKING SCHEME

Question - 5

- (a) (i) Auricular systole (Atrial systole) and ventricular diastole
- (ii) Part 1 – pulmonary artery (to the left lung).
Part 2 – Superior venacava.
Part 3 - Aorta
- (iii) Auricles are contracting in this phase because bicuspid (operative) and tricuspid valves (operative) are open to allow the blood to flow from auricles to ventricles.

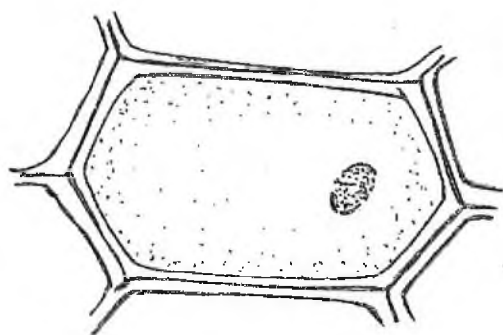


[10 x ½ =

- (b) (i) Ventricles has to pump the blood to different parts of the body. But auricles are mainly receiving chambers and it has to pump the blood only to the next chamber.
- (ii) Nephrons are arranged in such a way that Bowman’s capsule and convoluted tubules comes in the cortex.
- (iii) Wooden doors absorb water due to imbibition and the cells become turgid and increase in size.
- (iv) Middle ear is connected to pharynx through Eustachian tube. So microbes can travel through this tube and can cause infections.
- (v) This is a conditioned reflex happening due to prior learning or experience.

Question 6

- (a) The figure given below shows the epidermal cells of an onion bulb. This cell was then transferred to a drop of sugar solution.



- (i) Draw a well labelled diagram of the epidermal cell as it would appear after immersion in a strong sugar solution.
- (ii) What scientific term is used for the changes as shown in (i) above?
- (iii) What should be done to restore the cell back to its original condition?
- (iv) Give the scientific term for the recovery of the cell as a result of the step taken in (iii) above.
- (v) Define the term osmosis. [5]

(b) Briefly explain the following terms:

- (i) Genes.
- (ii) Cytokinesis in plant cells.
- (iii) Guttation.
- (iv) Diabetes insipidus.
- (v) Disinfectants. [5]

Examiners' Comments

- (a) (i) The diagram required a shrunken protoplasm. Most candidates did not know the concept of a plasmolysed cell, they drew large vacuoles. Some of them were not aware of the fact that the cell membrane withdraws from the cell wall and the space between the two gets occupied by a sugar solution.
- (ii) The question was correctly answered.
- (iii) Correctly answered by most candidates.
- (iv) Most candidates answered correctly.
- (vi) Most candidates wrote the correct definition. Due to carelessness a few did not mention semipermeable membrane. Some were not clear about the concept of movement of water molecules.
- (b) (i) Most candidates wrote the correct explanation, however a few failed to make a reference to transmission of characters from parents to off springs.

Suggestions for teachers

- Writing practice to be given for definitions emphasizing on operative terms.
- Modify textbook explanations and advise student to use simple, short sentences to convey their answers.
- Explain the concept of endosmosis and plasmolysis clearly so that students have the required knowledge to correlate hypotonic solution with endosmosis and hypertonic solution with plasmolysis.
- Assign regular practice in drawing a well labeled turgid cell and plasmolysed cell.
- Students must know the importance of shrunken protoplasm and withdrawal of cell membrane from cell when the cell is placed in a hypertonic solution

- (ii) Many candidates missed the idea of cell plate formation in the division of cytoplasm in plant cells. They failed to score as they were not sure of their subject matter.
- (iii) Correctly answered by most candidates. A few were confused with Transpiration and wrote 'water vapour' instead of 'water droplets'. Some candidates were unsure about the loss of water droplets.
- (iv) Most candidates made no mention of the condition that leads to the disease as they wrote the symptom only.
- (v) It was felt that most candidates were not trained to write the operative term 'strong Chemicals' and hence failed to score marks.

MARKING SCHEME

Question - 6

(a) (i)

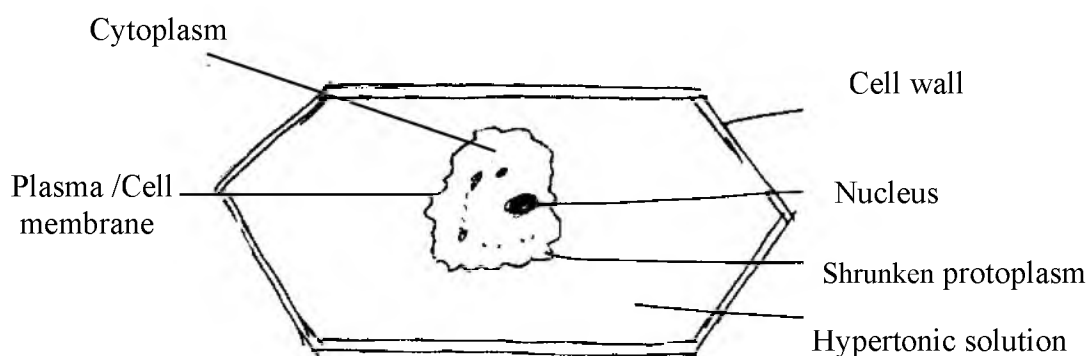


Diagram: Shaper of the cell
Shrunken protoplasm

- (ii) Plasmolysis
 - (iii) Place the cell in hypotonic solution.
 - (iv) Deplasmolysis.
 - (v) Osmosis is the process of movement of water molecules from its higher concentration to its lower concentration through a semipermeable membrane (dependent).
- (b) (i) Special sequences on the DNA molecule which are responsible for the transmission of characters from parents to offsprings (dependent).
- (ii) It is the division of cytoplasm in plant cell. A cell plate appears in the centre of the cell which divides the cell into two.
 - (iii) Loss of water as water droplets through hydanthodes.
 - (iv) Disease due to hypo secretion / under secretion of ADH/Vasopressin resulting in diluted urine / urine loaded with water.
 - (vi) Strong chemicals applied on spots and places to kill harmful microbes.

Question 7

- (a) (i) Draw a well labelled diagram to show the anaphase stage of mitosis in a plant cell having four chromosomes.

- (ii) State any *two* harmful effects of acid rain.
- (iii) Expand the following biological abbreviations:
 - (1) NADP
 - (2) ACT

[5]

- (b) (i) List any *two* major activities of the Red Cross.
- (ii) Write any *two* major reasons for the population explosion in the world.
- (iii) Write the names of *four* nitrogenous bases in a DNA molecule.

[5]

Examiners' Comments

- (a) (i) Only a few candidates were able to draw a proper diagram of the Anaphase stage in a plant cell. The common errors observed were:
 - Not reading the question carefully and hence, drew an animal cell instead of a plant cell.
 - Unaware of Mitosis in plant cells.
 - Drew Asters and Centrioles.
 - Absence of spindle fibres and Centromeres. Drew 6 to 8 chromatids instead of 4.
 - Paired chromatids going to the poles of the cell without separating.
- (ii) This question was answered correctly by most candidates.
- (iii) Most candidates were able to expand NADP correctly. Some of them lost marks for writing 'Nicotinamide Adenosine Diphosphate', as they were confused.
- (b) (i) Most candidates wrote correct answers. A few however mixed up the activities of the Red Cross with that of the WHO.
- (ii) Majority of candidates failed to score as they wrote the reasons for population explosion in India instead of the world reflecting they did not read the question properly.
- (iii) Candidates were able to write the names of the 4 Nitrogenous bases, but a few lost marks due to spelling errors. 'Adenine' was spelt as 'Adenosine', 'Thymine' as 'Thiamine' which otherwise have different biological meanings.

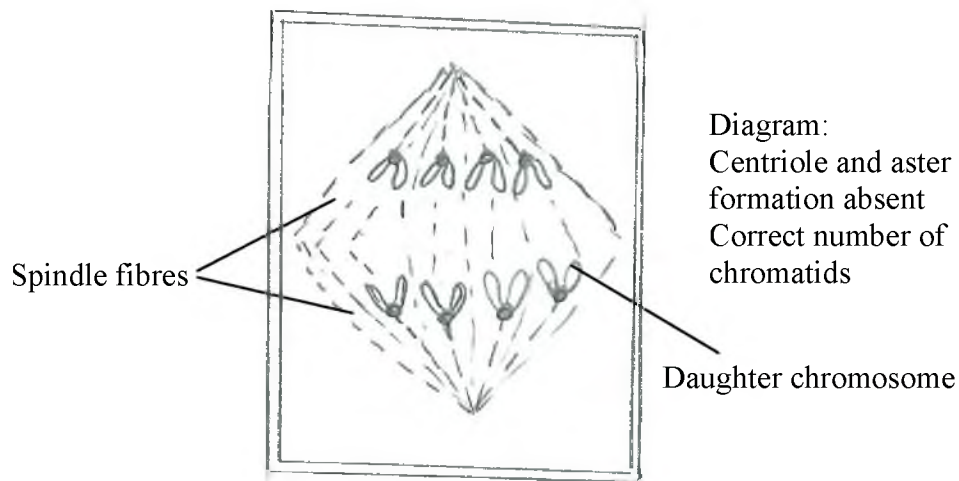
Suggestions for teachers

- Students must be trained to understand the changes visible in nucleus during mitotic cell division as a result of which the stages can be identified.
- Insist on students drawing labeled diagrams of the different phases in mitosis with a given number of Chromosomes.
- Clarify the concept of duplication of chromosomes during prophase and separation of chromatids during Anaphase.
- Students must be trained to clearly distinguish between Chromosome and Chromatid, Centromere and Centrosome.
- Emphasize on the difference between the Plant and Animal mitotic cell division
- Make a list of all biological abbreviations related to their syllabus and assign writing practice to students.

MARKING SCHEME

Question - 7

(a) (i)



- (ii)
1. Damage to vegetation
 2. Decay or building materials and paints
 3. Erosion of ancient monuments
 4. Kill aquatic animals.

(iii) Nicotinamide adenine dinucleotide phosphate.
(dinucleotide = 0, Adenosine = 0) Dependent
Adreno corticotrophic hormone

- (b) (i)
1. To extend help to the victims of any calamity.
 2. Provide blood for the needy victims of war
 3. Provide first aid in accident
 4. Arrange ambulance service in al emergencies. (any four functions)

- (ii)
1. Better health care.
 2. Fewer deaths
 3. Improved nutrition
 4. Large scale immunization

(iii) Adenine
Guanine
Thymine
Cytosine

Topics found confusing/difficult:

- Internal structure of human heart, valves inside the heart and their functions.
- Distinguishing Phenotype from Genotype.
- Phenotypic ratio of F₂ generation in a dihybrid cross.
- Diagram of a plasmolysed plant cell.
- Diagrammatic representation of Structural differences between artery and vein.
- Identifying the physiological experiments associated with Photosynthesis and Osmosis.
- Exact location of structures / organs in plants and animals.
- Arrangement of terms in a logical sequence.
- Right and left sides of the heart and the associated structures.
- Names of the accessory glands of male reproductive system.
- Definitions of Antiseptic and Disinfectant.
- Parts of Eye and Ear and their functions.
- Brain and Spinal cord with reference to arrangement of neurons.
- Differences between Photolysis and Photophosphorylation and the factors.
- Functions of Hormones.
- Distinguishing simple from Conditioned Reflex actions.
- Stages of Mitosis.

Suggestions for Students :

- All questions are equally scoring and no question takes precedence over the other.
- Repeated revision of topics will help in a proper understanding of concepts.
- Do not overlook any part of a question and avoid being in a hurry to conclude an answer.
- Comprehend what is being asked before answering by reading the question carefully.
- Give importance to spellings of biological and technical terms.
- Explanations of biological terms must be precise and complete.
- Importance must be given to drawing accurate, neat, and well labelled diagrams.
- Follow instructions given in each question.
- Answer the number of questions as asked in the rubrics of the question paper.
- Never omit answering any part of a question.
- Revise your answers after completion so as to identify the terms left out or spelt wrongly.

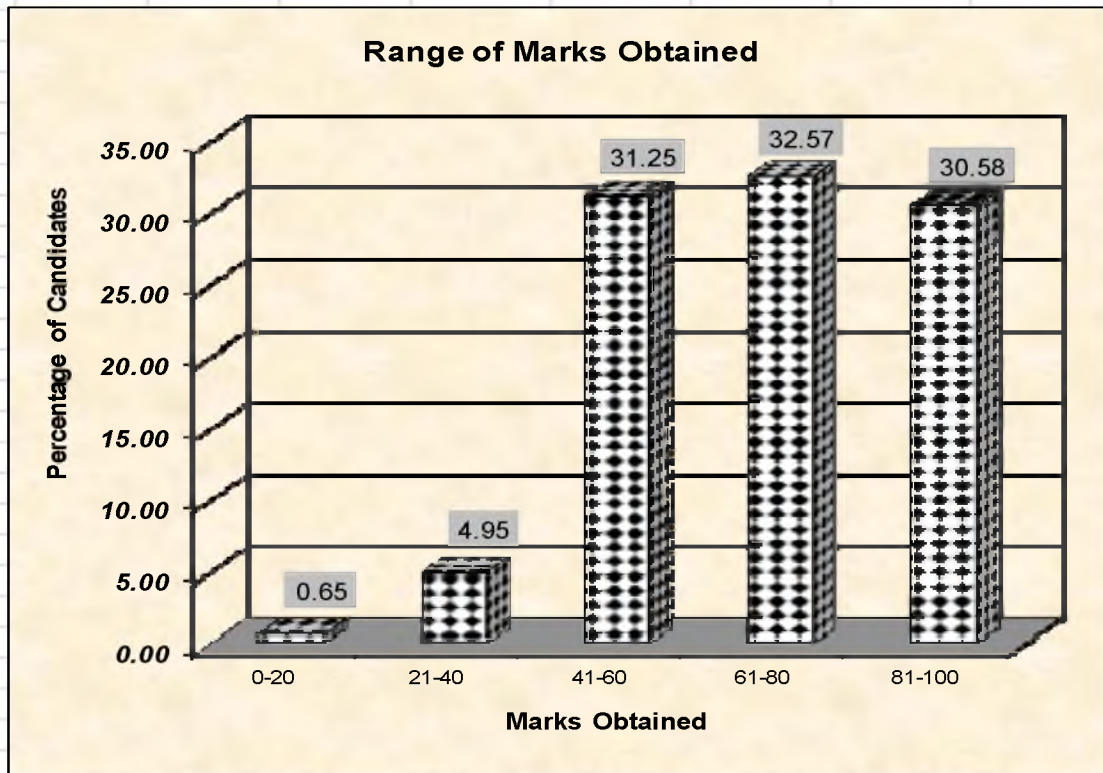
COMMERCIAL STUDIES

STATISTICS AT A GLANCE

Total Number of students who took the examination	10,596
Highest Marks Obtained	100
Lowest Marks Obtained	13
Mean Marks Obtained	69.16

Percentage of Candidates according to marks obtained

Details	Mark Range				
	0-20	21-40	41-60	61-80	81-100
Number of Candidates	69	525	3311	3451	3240
Percentage of Candidates	0.65	4.95	31.25	32.57	30.58
Cumulative Number	69	594	3905	7356	10596
Cumulative Percentage	0.65	5.61	36.85	69.42	100.00



COMMERCIAL STUDIES

ANALYSIS OF PERFORMANCE

Question 1

Distinguish between:

- (a) *Variable Cost* and *Semi-Variable Cost*. [2]
- (b) *Savings Account* and *Current Account*. [2]
- (c) *A Private Warehouse* and *a Public Warehouse*. [2]
- (d) *A Production Budget* and *a Sales Budget*. [2]
- (e) *A Brand* and *a Grade*. [2]

Examiners' Comments

- (a) Most candidates knew the correct differentiation between the two but the language used was inappropriate with examples quoted being incorrect in a few cases.
- (b) Most candidates answered the question correctly.
- (c) Most candidates answered the question correctly.
- (d) The question was answered correctly by most candidates.
- (e) Most candidates answered the question correctly.

Suggestions for teachers

- Thorough revision of such topics, with examples, that require points of differentiation must be practised regularly.
- Additional practice and revision must be carried out to ensure confidence in answering questions related to concerned topics.
- Reference books may be referred to facilitate students to comprehend concerned topics
- Model test papers may be practised in class to clear all doubts and bring about clarity in answers.

MARKING SCHEME**Question 1.**

Basis of Distinction	Variable Cost	Semi-Variable Cost
Meaning	These are the costs which vary directly in proportion to changes in the volume of output.	These are the costs which do vary proportionately but do not remain constant also.
Example	Direct Material, Direct Labour, etc.	In Telephone cost-Basic Rental Charges, etc.

(a)

Basis of Distinction	Savings Account	Current Account
Beneficiary	General Public	Businessmen
Interest on Deposit	Interest is given on the deposit to the account holder.	No interest is given on the deposit to the account holder.

(b)

Private Warehouses	Public Warehouses
These warehouses are owned by manufactures and traders to store the goods produced or purchased by them until they are sold out. The expenses for constructing, maintenance and insurance of private warehouses are paid by the owners.	These warehouses are meant for use by businessmen in general. Any businessman can store his goods in these warehouses for some charge. Public warehouses may be owned by Government, public trusts and other public authorities.

(c)

Production Budget	Sales Budget
It is an estimate of the total volume of production based on sales budget.	It is essentially a forecast of sales to be achieved during a specific period in future. It lays down the revenue goals of the enterprises.

(d)

Basis of Distinction	Brand	Grade
Purpose	It indicates the brand of the product.	It is used to point out the quality of the product.
Example	Sony, Samsung, etc.	80% cotton, 100% pure, etc.

Question 2

- (a) Give any *two* methods used for *On-the-Job* training. [2]
- (b) Explain 'Indirect Cost'. [2]
- (c) Why is gratuity given by an employer to an employee? [2]
- (d) What is a Trademark? [2]
- (e) Give *two* examples of efficient and eco-friendly technology. [2]

Examiners' Comments

- (a) Most candidates wrote correct answers citing suitable examples.
- (b) Most candidates wrote incorrect answers that were vague in nature and quoted incorrect examples too.
- (c) Most candidates wrote on "what Gratuity is" rather than stating the reason why it is given to employees.
- (d) A few candidates answered correctly but lacked in using important key words and related terms.
- (e) Most candidates answered the question correctly.

Suggestions for teachers

- This topic demands a lot of practice hence adequate revision must be ensured.
- Additional practice and revision must be carried out to bring about clarity in concepts.
- Encourage students to understand and learn keywords that are related to concerned topics.

MARKING SCHEME

Question 2.

- (a) (i) Apprenticeship Training
(ii) Job Rotation
(iii) Internship training (Any two)
- (b) **Indirect Cost** – It refers to the expenses incurred on those items which are not directly chargeable to production. Indirect Cost is incurred for the concern as a whole rather than for a particular product. For eg : Salaries of Timekeeper, Storekeeper, Foremen, etc.
- (c) **Gratuity** is a terminal benefit to a worker when he leaves the employment after working for a certain number of years. Originally, Gratuity was a voluntary payment made by an employer to his employee who retired after a long and dedicated services.
- (d) A **Trade Mark** is a brand or part of a brand that is given legal protection registered. It protects the seller's exclusive right to use the brand name and/or brand mark.
- (e) **Examples of Efficient and Eco-Friendly Technology** –
 - (i) Use of a Solar Heater in place of LPG.
 - (ii) Use of a Pressure Cooker in place of an ordinary vessel

Question 3

- (a) State *two* expectations of Competitors or Associates from a business concern/enterprise. [2]
- (b) Give any *two* suggestions to draw the attention of viewers to an advertisement of a product/service marketed by your company. [2]
- (c) Briefly explain the concept 'Marketing Research'. [2]
- (d) What is meant by 'the Clearing House Function' of the Reserve Bank of India? [2]
- (e) Explain the term *Brand Equity*. [2]

Examiners' Comments

- (a) Most candidates answered this question correctly barring a few who wrote incorrect answers
- (b) Most candidates answered the question confidently and correctly.
- (c) Majority of candidates answered the question correctly and explained the concepts with clarity.
- (d) A few candidates who understood the topic related to the Clearing House function of the RBI answered correctly.
- (e) Most candidates answered the question correctly.

Suggestions for teachers

- Thorough classroom discussions along with regular revision can help in strengthening the ability to answer topics related with banking.
- Functions of Commercial Banks and the RBI must be taught and revised citing differences between the two important banking concepts.
- Emphasise on clarity in answering questions associated with banking techniques.

MARKING SCHEME

Question 3.

- (a) **Two expectations of Competitor/Associate from a business concern :**
- (i) Fair trade practice regarding price, quality and service.
 - (ii) An atmosphere of healthy competition and ethical behaviour.
- (b) (i) Using photos of celebrities
- (ii) By using attractive slogan or words
 - (iii) Attractive margins (etc.)
- (c) **Marketing Research** refers to the systematic gathering, recording and analysis of data about marketing problems with the aim of providing information useful for decision-making in the field of marketing.
- (d) **The Clearing House Function:** The Central Bank provides clearing house facility to the Commercial Banks. In other words, it settles the claims of commercial banks through a process of book entries. The daily balances between the commercial banks can easily be adjusted by means of debit and credit entries in their respective accounts with the Central Bank. Let us take an example to explain this process. Suppose, the Bank of Baroda has to pay an amount of Rs.20 lakhs to the Punjab National Bank. To settle its due the Bank of Baroda will issue a cheque of Rs.20 lakhs to the Punjab National Bank. The Reserve Bank of India will debit the account of the 'Bank of Baroda' by Rs.20 lakhs and credit the account of the Punjab National Bank by the same amount.
- (e) **Brand Equity** means the marketing effect of a brand. It refers to the outcomes that result from the marketing of a particular product or service because of its brand name and that would not occur if the same product or service did not have the brand name.

Question 4

- (a) Distinguish between a *Debit Card* and a *Credit Card*. [2]
- (b) State any *two* rights of a Consumer. [2]
- (c) Write a short note on the Chipko Movement. [2]
- (d) What do you understand by Audio-Visual Communication? [2]
- (e) State *two* advantages of Road Transport over Air Transport. [2]

Examiners' Comments

- (a) Most candidates answered correctly however a few got confused and interchanged the headings, resulting in incorrect answers.
- (b) Most candidates answered the question correctly.
- (c) Most candidates answered correctly however a few lacked in using important key words and related terms.

Suggestions for teachers

- Encourage students to be aware of current issues relating to topics covered in the syllabus.
- Advise students to use keywords while answering questions that require them.
- A clear distinction should be made between different types of

- (d) Majority of candidates were unclear in their concepts about the topic and wrote incorrect answers.
- (e) Most candidates answered the question correctly, however a few failed to state the required advantages and wrote about features instead.

communication, citing suitable examples.

- Classroom discussions should involve active participation where questions need to be framed in ways that would lead to answering them with conviction.

MARKING SCHEME

Question 4.

Basis	Debit Card	Credit Card
Usage	Debit cards can be used as either a debit card or credit card	Credit cards can only be used as a credit card.
Limitation	The purchases made with a debit card cannot exceed the amount of money a person has in their bank account.	The purchases made with a credit card can exceed the amount of money a person has in their bank account.

- (a) Rights of consumer:
- (i) Right to safety
 - (ii) Right to information
 - (iii) Right to hear
 - (iv) Right to choose
 - (v) Right to redeem.
 - (vi) Right to consumer education. (Any two)
- (b) The **Chipko movement** or **Chipko Andolan** is a movement that practised the methods of satyagraha and non-violent resistance, through the act of hugging trees to protect them from being felled. The modern Chipko movement started in the early 1970s with growing awareness towards rapid deforestation. The Chipko movement, though primarily a livelihood movement rather than a forest conservation movement, went on to become a rallying point for many future environmentalists, environmental protests and movements the world over and created a precedent for non-violent protest.
- (c) **Audio – Visual Communication** combines both sound (aural) and sight (visual) means. TV and Cinema are the main forms of Audio – Visual Communication.
- (d) The Two **advantages of Road Transport over Air Transport** are :
- (i) Economical for short distance
 - (ii) Flexibility to reach a destination (Any other related points)

Question 5

(a) Differentiate between *Shareholders* and *Creditors* as Stake holders of a commercial organisation. [5]

(b) Distinguish between *oral* communication and *written* communication. [5]

Examiners' Comments

- (a) Most candidates answered the question correctly.
- (b) The question was answered correctly by most candidates.

Suggestions for teachers
 - Encourage students to have active sessions of role play involving various types of communication.

MARKING SCHEME

Question 5.

	Shareholders	Creditors
	They are internal stakeholders	They are external stakeholders
	They invest in the capital of the company	They only give loan to the company.
	They assume greater risk of loss of capital.	They assume lesser risk of loss of loan
	They share in the profits of the company in the form of dividends.	They do not share in the profits of the company and receive only interest on their loan.
	They are the members of the company.	They are not members of the company.

(b)

Oral Communication	Written Communication
It is face-to-face communication or through telephone, mike or loudspeaker, etc.	It may be through a letter, notice, note, circular, etc.
It takes almost no time – fast.	It takes long time - slow
It is most suitable in case of emergency.	It is not suitable for emergency.
It cannot be verified afterwards.	It can be verified
It cannot be used for reference in future – no legal document.	It can be used for reference in future – a legal document
It is not very reliable and precise.	It is highly reliable and precise.

Question 6

- (a) How can environmental values and ethics be protected? Give reasons to support your answer. [5]
- (b) Explain the different sources of Internal Recruitment. [5]

Examiners' Comments

- (a) Most candidates answered the first part of the question correctly but could not justify the sub part of the question that required reasons to be given and hence wrote incomplete answers.
- (b) Most candidates answered the question correctly with only a few being unable to write comprehensive answers.

Suggestions for teachers

- Instruct students to read the question carefully before making any attempts to answer. This would enable them to comprehend and understand what exactly is being questioned and this would result in accurate and correct answers being written.
- Additional information through reference books must be given to students to enable them to understand concepts and subsequently have the confidence to answer questions posed on concerned topics.

MARKING SCHEME

Question 6.

- (a) We can protect Environmental values and ethics by encouraging them to (i) use cloth/paper bags (ii) use organic manure (iii) respect other people's things (iv) reuse plastic and glass containers (v) recycle paper to save trees.
- (b) **Sources of internal recruitment :**
- (i) **Promotion** – Vacancies at higher level can be filled up by promoting persons working at lower levels.
 - (ii) **Transfer**- Transfer means shifting an employee from one factory, branch or office to fill vacancy in other factory, branch or office of the company.

Question 7

- (a) Explain the Experimentation method of Marketing Research. [5]
- (b) 'Budgets are very useful in Management'. Justify. [5]

Examiners 'Comments

- (a) Most candidates answered the question correctly but lacked in terms of using key words associated with the concerned topic.
- (b) Most candidates answered the question correctly however a few failed to mention the terms concerning a budget effectively.

Suggestions for teachers

- Thorough revision of these topics must be carried out to enhance the understanding of market related issues by students.
- Instructions must be given to students to write answers with correct headings and related points to be noted under each sub part of the concerned topic.

MARKING SCHEME

Question 7.

- (a) Under the **Experimentation method**, a control market is established in which all forces except those being tested are kept under check. Reactions are recorded under controlled conditions to test a theory. It can be used to test the effectiveness of an advertisement or sales promotion campaign before undertaking it on a National scale. This method provides lessons which can be used to make large scale marketing activity more effective and profitable. The method is realistic as it simulates the actual market situation.
- (b) **Utility of Budgets in management :**
 - (i) **Sound Planning** – Budgets makes planning purposeful and precise. Objectives and programs are expressed in physical or monetary units in budgets.
 - (ii) **Higher Efficiency** – Budgets bring more efficiency and economy to the working of the business firm.
 - (iii) **Sense of Responsibility** – Budgets help to establish divisional and departmental responsibility.
 - (iv) **Source of Motivation** – Budgets represent the milestones to be reached. Budgets become the goal or targets to be achieved.
 - (v) **Coordination** – Budgets force executives to think as a group. They are prepared in coordination with one another. They help in achieving co-ordination between different departments of the enterprise.

Question 8

- (a) Distinguish between the Principle of *Indemnity* and the Principle of *Insurable Interest*. [5]
- (b) Explain the role of Commercial Banks in the Economic Development of a country. [5]

Examiners' Comments

- (a) Only a few candidates answered the question correctly while many were confused in identifying the basis of distinction between the respective principles.
- (b) Candidates who were confused with the term "role" wrote the functions of Commercial Banks instead.

Suggestions for teachers

- A clear distinction on the Principles of Insurance should be taught, with suitable examples being quoted for understanding.
- A comprehensive and detailed discussion in class must be carried out during the teaching of Banking related concepts citing day to day examples.

MARKING SCHEME

Question 8.

(a) Principles of Insurance :

- (i) **Indemnity** – It means a promise to compensate in case of loss. The object of every insurance contract is to place the insured as nearly as possible in the same financial position after the loss as he was before the loss. The insured is entitled to recover from the insurer only the amount of loss actually suffered. The maximum amount of compensation will be up to the sum insured or the value of policy. The insured will not be allowed to make any profit out of the happening of any loss covered by insurance contract.
- (ii) **Insurable Interest** – Insurable interest means that the insured must be in such a position that he will suffer a primary loss by the happening of the event insured against. A person is said to have an insurable interest in the subject matter insured, if he is benefitted by its existence and suffers a loss by its destruction. For example, a trader has insurable interest in his goods and creditor has insurable interest in the life of the debtor till the loan is repaid. Thus insurable interest is the financial interest of the insured in the subject matter of insurance.

(b) Role of Commercial Banks in Economic Development

- (i) **Safety of Money** – Money deposited in Banks remain safe. Precious articles too can be kept safe in the custody of banks in lockers.
- (ii) **Increase in Credit** - Customers with Bank Accounts enjoy better creditworthiness in the business world.
- (iii) **Savings** – Banks encourage the habits of saving and thrift among people. They mobilize public savings and invest them in productive avenues.
- (iv) **Transfer of Money** – Banks provide a convenient and safe means of sending money from one place to another.
- (v) **Collection of Money** – Banks collect and realize the bills, interests, etc. on behalf of their customers.

Question 9

- (a) Briefly explain any *five* factors a businessperson would consider while selecting an appropriate media to advertise his/her product. [5]
- (b) What do you understand by ‘Group Insurance’? State any *three* features of Group Insurance. [5]

Examiners’ Comments

- (a) Most candidates answered the question correctly and points were expressed with conviction.
- (b) Most candidates answered the first part of the question correctly however they were unconvincing in stating the features of the concerned topic in the sub part of the question.

Suggestions for teachers

- Regular practice and revision through active class discussion supported with assignments must be done in order to achieve better performances.

MARKING SCHEME

Question 9.

(a) **Factors affecting choice of Media :**

- (i) **Nature of the product** – Consumer products like toothpaste, cold drinks, etc. are meant for masses and therefore, should be advertised through Newspapers, radio, films, outdoor displays , may be used for wide appeal.
- (ii) **Nature and Size of the Market** – The geographical location or region, size of population and its purchasing power have an important bearing on advertising media.
- (iii) **Objectives of Advertising** – The objectives of advertising campaign are very important in deciding the medium of advertising.
- (iv) **Types of Audience** – The class of people to whom the message is addressed is an important consideration. Illiterate and poor people can be better approached through radio, films, etc.
- (v) **Type of Message** – Choice of advertising media also depends upon the length and life of the advertising copy.

(b) **Group Insurance:** Group Insurance is a scheme which provides insurance cover on the lives of several persons under one insurance policy or contract. It is generally provided to the employees working under one employer. The insurance on each life is, however, independent of that on the other lives. The main features are:

- (i) Insurance is provided to all employees without any evidence of insurability.
- (ii) It provides risk coverage to the employees as long as they remain in the service of the employer.
- (iii) Group Life Insurance is basically a contract between the insurance company and the employer. The policy issued to the employer is called master contract.
- (iv) The premium is generally paid jointly by the employee and the employer.
- (v) The amount of premium is payable at a flat rate without any regard of the age and salary of the employees.

(vi) In case of injury or death to an employee, the claim received by the employer is paid to the employee or his nominee.

Question 10

From the following Trial Balance of Shri Rai Bahadur, prepare Trading, Profit & Loss Account for the year ending 31st March, 2012 and Balance Sheet as on that date. [10]

Trial Balance

Debit Balances	(₹)	Credit Balances	(₹)
Drawings	4240	Capital	32000
Purchase less returns	15610	Sales less Returns	34176
Rates & Taxes	388	Sundry Creditors	4422
Salaries	1612		
Lighting & Heating	164		
Electric Power	384		
Commission	414		
Insurance	206		
Advertising	214		
Bad Debts	62		
Postage, Telegrams, etc.	826		
Carriage	754		
Opening Stock	6160		
Wages	7962		
Land & Building	15840		
Plant & Machinery	4034		
Furniture & Fittings	378		
Sundry Debtors	6082		
Cash at Bank	5268		

The Closing Stock on 31st March was valued at ₹ 8760/-.

Examiners' Comments

Only a few candidates attempted and answered the question correctly.

Suggestions for teachers

- As part of the Accounting principles it is suggested that this topic be given due importance and students be encouraged to understand and attempt practical related numericals that would enhance their application based skills.

MARKING SCHEME**Question 10.**Trading and Profit and Loss Account of Shri Rai Bahadur for the year ending 31st March, 2009

Dr.

Cr.

Particulars	Amount (₹)	Particulars	Amount (₹)
To Opening Stock	6160	By Sales less Returns	34176
To Purchases less Returns	15610	By Closing Stock	8760
To Carriage	754		
To Wages	7962		
To Electrical Power	<u>384</u>		
To Gross Profit tfd to P&L A/C	12066		
	42936		42936
To Salary	1612	By G.P. tfd. From Trading A/C	12066
To Rates & Taxes	388		
To Lighting and Heating	164		
To Commission	414		
To Insurance	206		
To Advertising	214		
To Bad Debts	62		
To Postage, Telegrams, etc.	826		
To Net Profit tfd. To P & L A/C	9180		
	12066		12066

Balance Sheet of Shri Rai Bahadur as on 31st March, 2009

Liability	Amount (₹)	Asset	Amount (₹)
Sundry Creditors	4422	Land & Building	15850
Capital 32000 Add N.P. 9180 41180 Less drawings 4240	36940	Plant & Machinery	4034
		Furniture & Fittings	378
		Sundry Debtors	6082
		Cash at Bank	5268
		Closing Stock	8760
	41362		41362

Topics found confusing/difficult:

- Audio Visual Communication
- Variable & Semi Variable Costs and related examples.
- Social Security Schemes relating to Gratuity.
- Central Bank and its functions with relation to Clearing House.
- Distinction between Principle of Indemnity and Principle of Insurable Interest.
- Efficient and eco-friendly technology
- Preparation of Final Accounts.

Suggestions for candidates:

- Read questions carefully before answering them.
- Avoid selective study and concentrate on all topics covered in the syllabus.
- Regular practice and revision of significant topics on Banking, Insurance and Advertising must be conducted.
- The sub parts of questions must always be attempted and answered accordingly.
- Key terms involved in Basic topics must be stressed by way of adequate revision.

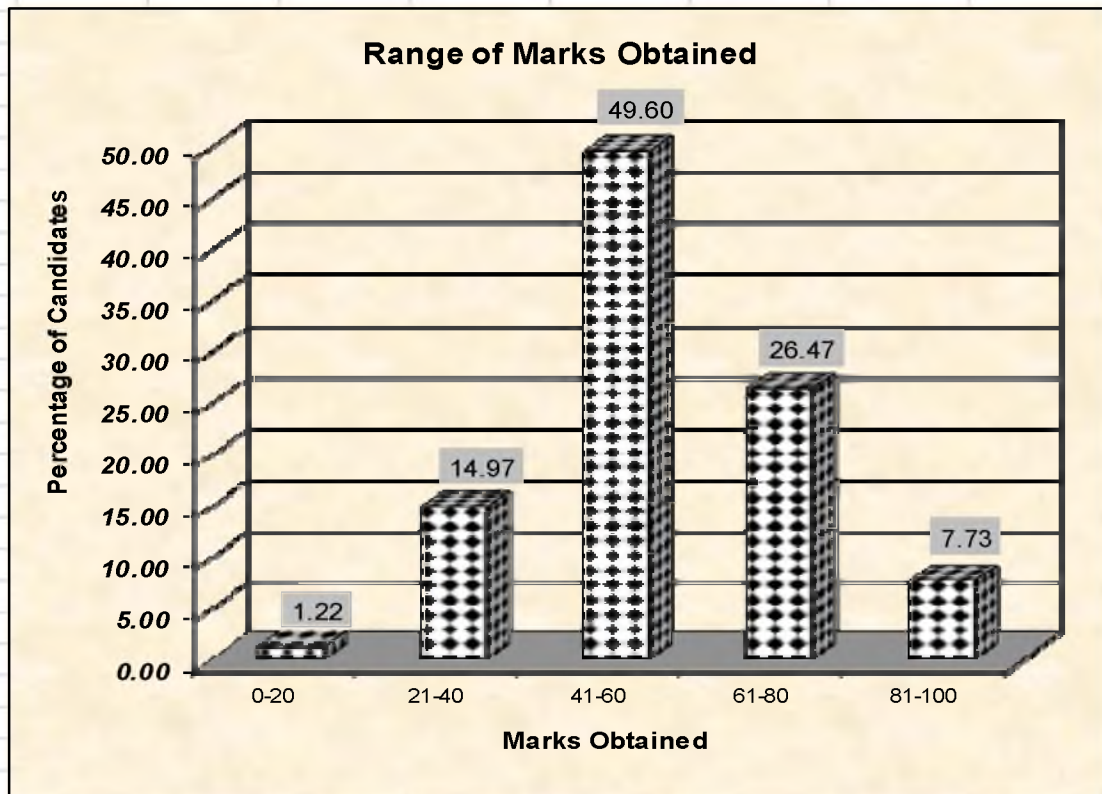
ECONOMICS

STATISTICS AT A GLANCE

Total Number of students who took the examination	7,294
Highest Marks Obtained	98
Lowest Marks Obtained	14
Mean Marks Obtained	56.39

Percentage of Candidates according to marks obtained

Details	Mark Range				
	0-20	21-40	41-60	61-80	81-100
Number of Candidates	89	1092	3618	1931	564
Percentage of Candidates	1.22	14.97	49.60	26.47	7.73
Cumulative Number	89	1181	4799	6730	7294
Cumulative Percentage	1.22	16.19	65.79	92.27	100.00



ECONOMICS

ANALYSIS OF PERFORMANCE

Question 1

- (a) State *two* advantages of opening a bank account. [2]
- (b) What is the difference between *impact of taxation* and *incidence of taxation*? [2]
- (c) Define cost-push inflation. State *two* factors causing it. [2]
- (d) The bus fare between two cities is reduced. How will this affect the demand curve for bus travel between the two cities? [2]
- (e) Distinguish between *Real* capital and *Debt* capital with the help of suitable examples. [2]

Examiners' Comments

- (a) This question was answered correctly by most candidates however, they wrote general answers instead of writing about advantages of opening a bank account from the point of view of a customer.
- (b) Most candidates were unable to answer this question correctly. They were unable to comprehend the differences between impact and incidence related to direct and indirect taxes.
- (c) Most candidates answered the question correctly, though a few committed basic errors. A few candidates did not mention the term consistent /prolonged.
- (d) This question was answered correctly by most candidates, however there was confusion regarding the diagram - whether it was a *shift* or *movement* of the demand curve.
- (e) The question on Real capital was answered correctly by most candidates, however answers on the concept of Debt Capital was mere guesswork and were not supported with appropriate examples.

Suggestions for teachers

- Advise students to read the question carefully before attempting it. Expose students to different alternative terms so that they are able to attempt such questions..
- Use examples to highlight the importance of the concept of **shifting of the burden of a tax**. This will help students to understand and recall the topic clearly.
- Highlight **key** differences between demand-pull and cost-push inflation, and the **common factor** between them-*long period of time*.
- Such questions relate to daily- life situations. Provide adequate practice of these situations.
- All differences should be taught with the help of examples, as it brings about clarity of concepts.

MARKING SCHEME

Question 1.

- (a) Payments through cheques safer & cheaper, helps to develop the habit of savings in people, customers can avail overdraft facilities, bills of exchange can be discounted easily, transactions can be produced as evidence in case of disputes. (Any two)
- (b) When the Government imposes a tax, then the person or the organization which bears the tax at the first instance is known as the impact of tax. If the taxpayer can shift the burden of the tax then the final resting point of the tax burden is known as the incidence of tax.
- (c) Cost push inflation is defined as an increase in the general price level in the economy due to an increase in the average cost of production. Two factors causing it: increase in the wage rate, increase in the prices of raw materials, increase in the tax rates. (Any two)
- (d) As the bus fares have been reduced, the demand for bus travel will increase. Hence there will be a downward movement along the demand for bus travel. (diagram optional)
- (e) Real capital refers to physical stock of goods which are used as factor inputs such as machines, raw materials, etc. This is also known as Concrete Capital. Titles to wealth such as shares and debentures etc. are called Debt Capital. People earn dividend and fixed interest on these investments.

Question 2

- (a) Distinguish between *simple division* of labour and *complex division* of labour. [2]
- (b) What is meant by *expenditure tax*? Give an example. [2]
- (c) How does money solve the problem of lack of a common measure of value that existed under the barter system? [2]
- (d) How does the nature of a good affect its elasticity of demand? [2]
- (e) Mention *two* agency functions of a Commercial Bank. [2]

Examiners' Comments

- (a) Most candidates answered this question correctly, however some were unclear about the differences and appeared confused in citing examples of each type.
- (b) Most candidates were confused by the term 'Expenditure Tax'. While many attempted this question some candidates were unable to do so.
- (c) Most candidates answered this question correctly. Some wrote about the primary functions of money, but were unable to explain the meaning of money as a *measure of value*.
- (d) Most candidates answered this question correctly, however a few did not mention types of goods as necessities, comforts and luxuries

Suggestions for teachers

- Questions based on differences should be taught systematically and thoroughly. The points written should match.
- This term is closely related to Sales Tax/VAT (Indirect Tax) - i.e. a tax which is imposed on a consumer when he/she spends on buying a commodity.
- While teaching the topic on taxes, try to give a broader picture of taxes rather than just the textual terms.
- The topic of Primary and Secondary functions should be explained separately and then as a whole concept. The concept of *price* needs to be emphasized on.

- (e) Most candidates correctly answered the question however others wrote the primary function of advancing loans/credit rather than its agency functions.

Suggestions for teachers

- Expose students to questions on a topic, using different phrases. This will infuse confidence among the students, who in spite of knowing the answer, are unable to comprehend the question due to poor language skills.
- Banking is an important and very relevant topic in current times. The functions of Commercial Banks should be taught by classifying the functions into primary, secondary and agency. This should be reinforced regularly.

MARKING SCHEME

Question 2.

- (a) Simple division of labour-worker or a group of workers specialises in the production of a particular commodity or service. This gives rise to various occupations like doctors, farmers, teachers etc. Complex division of labour-process of production is split up into different Sub processes and each worker does one or a few sub process. An example to be given.
- (b) Expenditure tax refers to indirect tax. E.g. sales tax, excise duty, VAT, etc.
- (c) In the barter system, as the rate of exchange was arbitrarily fixed according to the intensity of demand added up in terms of money i.e. price.
- (d) A luxury good (high price) influences a high elastic demand. Whereas a necessity (low price goods) has an elastic demand with given changes in their price.
- (e) (1) Commercial banks may make payments on behalf of their customers e.g. paying life insurance premium, etc.
 (2) Commercial banks may also collect payments on behalf of their customers such as pension payments, dividends, etc.
 (3) Commercial banks also act as agents of their customers in the sale and purchase of shares and debentures. Now commercial banks open 'demat' account for the purchase and sale of shares and debentures, etc.
 (4) Commercial banks also act as agents and trustees of their customers.
 (5) Sale and purchase of foreign exchange is also carried out commercial banks. (Any two points)

Question 3

- (a) Mention *two* causes of low efficiency of labour in India. [2]
- (b) Mention any *two* forms of consumer exploitation. [2]
- (c) Define *Public debt*. [2]
- (d) Indirect taxes are regressive in nature. How can they be made progressive? [2]
- (e) Distinguish between *demand* deposits and *fixed* deposits. [2]

Examiners' Comments

- (a) Most candidates answered the question correctly. Some candidates were confused about the brief explanation, so only the captions were written.
- (b) Most candidates answered this question correctly, quoting appropriate examples. A few however wrote why consumers are exploited.
- (c) Most candidates answered this question correctly though a mention of external and internal debts was expected. Key words were missing in many answers.
- (d) The first part of the question was answered correctly by most candidates, however there was confusion in answering the second part about how taxes can be made progressive.
- (e) Most candidates attempted the concept of *Fixed deposits* successfully, but were unsure about *Demand deposits*. Some wrote vague answers that reflected a poor understanding on the meaning of the term Demand deposit.

Suggestions for teachers

- Instruct students on how to answer questions involving terms of - *Define, Explain, Describe, State, Mention*. This would enable them to understand the needs of the question and answer the same accordingly.
- Topics must be taught citing examples. This leads to clarity about given concepts.
- Assignments must be given to students on how to answer different types of questions. These assignments must be corrected in order to guide students to write correct answers. Expose students to new vocabulary of terms associated with the subject in order to gain confidence and improve the quality of answers
- Different types of taxes should be taught by comparison, differentiation and with the help of examples. This makes each tax easy to understand and comprehend.
- A visit to a commercial bank will help students understand different types of deposits available to customers. In today's times banking is an important aspect of day to day life and all students of economics must be exposed to banking operations.

MARKING SCHEME

Question 3.

- (a) 1. Hot Climate
2. Low wages
3. In congenial environment
4. Poor technology
5. Migratory characters
5. Improper education and training facility (Any two)
- (b) Forms of consumer exploitation:
Substandard quality, underweight and under measurement, duplicate articles, High prices, lack of safety devices, poor after-sales service, adulteration and impurity. (Any two)
- (c) Public debt is a debt which a state owes to its own subjects or to the nationals of another country.
- (d) If indirect taxes are levied on luxury items and exempted on necessary items, then their regressive nature can be removed and they can be made progressive by imposing higher taxes on goods of comfort and luxury.

(e)	Demand Deposits	Fixed deposits
	<ul style="list-style-type: none"> • Can be withdrawn at any time without any notice. • They are chequable. • No interest is paid on these deposits. The bank has to be paid a service charge. 	<ul style="list-style-type: none"> • Can be withdrawn only after the expiry of a certain time period. • They are not chequable. • The bank pays a high rate of interest.

Question 4

- (a) Indicate the degree of elasticity of a supply curve parallel to the x-axis. [2]
- (b) Distinguish between *Creeping inflation* and *Running inflation*. [2]
- (c) How does money act as a standard of deferred payment? [2]
- (d) Briefly explain the importance of public expenditure in the industrial development of developing countries. [2]
- (e) Distinguish between *Statutory Liquidity Ratio* and *Cash Reserve Ratio*. [2]

Examiners' Comments

- (a) Most candidates answered the question correctly however a few wrote about the concepts of the Demand curve as they were confused between elasticity of Demand and that of Supply.
- (b) Most candidates only wrote the meaning of the types of inflation, making no comparative difference between the two types of inflation.
- (c) Most candidates answered this question incorrectly by writing a vague/ general answer instead of writing about money acting as a standard of deferred payment.
- (d) Most candidates wrote answers on the importance of Public expenditure correctly however there was no reference to its role in the industrial development of an economy.
- (e) Most candidates were quite clear in their understanding of CRR, but many were unclear about SLR. Some were confused between liquid assets and cash reserves

Suggestions for teachers

- Regular practice of drawing graphs/curves will make such concepts clear as there is a need to expose students to different types of questions.
- An assignment / project dealing with different degrees of inflation can help students understand differences clearly. Newspaper articles on current economic trends relating to Inflation may be read in class on a regular basis.
- Examples of money with respect to its different functions will be beneficial in understanding them with the help of practical examples. The use of the term *Deferred while teaching this function will be useful to students.*
- It is essential to expose students to different perspectives of a topic like Public Finance, of which Public Expenditure is an integral part.

Suggestions for teachers

- The use of appropriate examples will help strengthen the understanding of this concept
- This topic must be explained comprehensively with suitable examples.
- A talk or presentation on Banking by a Bank official/ expert may not only evince interest in this topic but make banking concepts very clear to students.

MARKING SCHEME

Question 4.

- (a) Price elasticity of supply = ∞ . There is infinite change in quantity supplied in response to a small change or no change in prices.
- (b) When the price level increases at a very slow rate, say at the rate of only 2 to 2.5% per annum it is called Creeping inflation.
Running inflation- when the price level rises at a faster rate say at the rate of 10% per annum, it is called a running rate. At this stage inflation may rise to a double digit figure.
- (c) Credit can be given in terms of money. People can buy now and pay later. This is possible because value of money is relatively stable. There is an element of durability in money material and it possesses the quality of general acceptability.
- (d) Public expenditure can bring about industrial development in the following ways:
Development of social infrastructure (bridges, roads, etc). Providing financial assistance to private producers to establish industries in the backward areas.
- (e) Setting up public enterprises in sectors which are unattractive to the private producers as such investments yield low rates of return and long gestation lags.

<u>Cash Reserve Ratio</u>	<u>Statutory Ratio Liquidity</u>
Ratio of a minimum cash reserve to total deposits that every commercial bank has to keep with the RBI. RBI can vary the CRR between 3-15%.	Ratio of liquid assets to the total time and demand deposits that the Commercial bank has to maintain with the RBI. RBI can vary SLR between 20-40%

Question 5

- (a) What is meant by increase in demand? Discuss any *four* factors affecting price elasticity of demand. [5]
- (b) Define *land*. Explain the importance of land as a factor of production. [5]

Examiners' Comments

- (a) Most candidates answered the first part of the question correctly. The second part however was answered incorrectly by many candidates, as factors affecting *Demand* were mentioned and not factors affecting *price elasticity of Demand*.
- (b) Most candidates wrote the correct definition. However there were instances where candidates wrote on the *characteristics* of land instead of writing on its *importance* as the question suggested.

Suggestions for teachers

- These basic yet important concepts highlights the need for students to practice reading of a question thoroughly, framing the answer mentally and then writing it effectively.
- Exposure to questions from different angles is essential to prepare students thoroughly for the examination. Practice questions with different points in the sub part of questions.

MARKING SCHEME

Question 5.

- (a) Increase in demand refers to rightward or outward shift in demand curve. When consumers demand for more goods at the same price or when they demand for the same quantity as before at a higher price, it is known as increase in demand. (Diagram is optional)
Factors: Nature of the commodity, availability of substitutes, number of possibility of postponement, proportion of total expenditure spent, habits, time period, price level. (Any four)
- (b) Land, in Economics, includes not only the surface of the earth but all those free gifts of nature, the supply of which can be regulated.
Importance: Agricultural development, industrial development, development of means of transport and communication, importance to man as a source of food and clothing, promotion of science and technology. (Any four)

Question 6

- (a) Define *supply*. State the law of supply and explain it with the help of a diagram. [5]
- (b) Define a *consumer*. Explain the importance of educating consumers of their rights. [5]

Examiners' Comments

- (a) The first part of the question was correctly answered by most candidates. A few were unsure about the second part and wrote about consumer rights instead.
The definition of *Supply* was answered correctly by most candidates. Some drew the supply curve but offered no explanation. In certain cases candidates explained the Law of Demand instead of the Law of Supply.

Suggestions for teachers

- A comparative chart must be displayed while teaching Laws of Demand and Supply, it could be as follows:- the statement of the Law, Demand/Supply schedules, diagram to represent the schedule and lastly the explanation of the diagram to arrive at the conclusion. This order if practiced regularly will benefit students.

- (b) Most candidates answered the question correctly however instead of stressing on the importance of educating consumers on their rights, many wrote on consumer rights itself.

Suggestions for teachers

- Students should be made aware of all the aspects about a topic. Issues related to Consumer Awareness should be taught with the help of present day situations.
- Projects based on Consumer Awareness can be given as assignments.

MARKING SCHEME

Question 6.

- (a) Supply-Quantity of the commodity that the producers desire to sell to the Consumers at different possible prices.
The Law of Supply states other things remaining the same, when price rises supply extends and when price falls supply contracts.

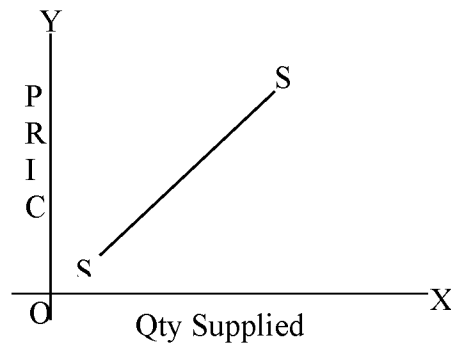


Diagram should be clearly explained.

- (b) A consumer is a person who buys goods and services by making full or part payment for those goods and services without any objective of using them for commercial purposes.
Importance of consumer awareness: Increased alertness about price, quality and quantity of the product, ability to protest against exploitation in an organized way, awareness of legal provisions to safeguard their interests, claiming of compensation for any loss or injury suffered due to consumption of spurious goods, transformation from passive consumers to active ones.

Question 7

- (a) Name the institution that enjoys the monopoly of note issue in India. Briefly explain *two* qualitative methods of credit control adopted by this institution. [5]
- (b) Define labour. Explain *four* important characteristic features of labour. [5]

Examiners' Comments

- (a) Most candidates attempted the first part of the question correctly. However a few wrote on the quantitative methods of credit control instead of qualitative methods.
- (b) This question was answered correctly by most candidates. A few however defined *labour* incorrectly while some failed to mention that *labour* is done with the motive of earning a reward.

Suggestions for teachers

- An important topic of Banking, the functions of the RBI / Central Bank must be explained thoroughly with due importance to its role in Credit Control. Written assignments on this topic will help reinforce its comprehension and understanding.
- Labour as a factor of production is a fundamental topic and covers many sub-topics like Division of Labour, Efficiency of Labour etc.
- It is essential that clarity in concepts of labour or other factors of production should be done during class discussions and revision.

MARKING SCHEME

Question 7.

- (a) Reserve Bank of India.
Qualitative credit control measures of the RBI: Margin money, Credit authorization, Differential Rates of Interest, Moral Suasion, Rationing of credit. (Any two)
- (b) Labour in Economics refers to any physical or mental endeavour in return for remuneration.
Characteristics of Labour:
- Labour cannot be separated from the labourer.
 - Labour cannot be accumulated.
 - Labour supply varies over time
 - Human labour carries an element of judgement
 - Labour is mobile.
 - Labour has alternative uses
 - Labour generates income
- (Or any other relevant points)
(Any four characteristics should be explained)

Question 8

- (a) What is meant by food adulteration? Give an example. Mention two harmful effects of food adulteration. Name any *one* measure formulated to prevent the problem of food adulteration in India. [5]
- (b) Explain *two* methods adopted by Commercial Banks to advance loans to the general public. [5]

Examiners' Comments

- (a) The first part of the question was answered by most candidates, citing suitable examples. However the harmful effects were explained in a vague and incorrect manner. Many candidates wrote about the problems created by food adulteration instead of its harmful effects. The measures taken were answered correctly by most candidates.
- (b) Most candidates answered this question incorrectly as they were confused between loans and cash credit. Some candidates wrote about different ways of *depositing money* in banks instead of stating *methods of advancing loans*.

Suggestions for teachers

- Expose students to different types of questions based on a particular topic. This will enable them to be prepared thoroughly leading to an improvement in their performance.
- Different methods of advancing loans should be taught thoroughly as it is an important topic which has practical implications. Inviting a bank official may help reinforce the topic through a talk/ discussion.

MARKING SCHEME

Question 8.

- (a) Food adulteration: Act of intentionally degrading the quality of food offered for sale either by the mixture or substitution of inferior substance or by the removal of some valuable ingredient from the product Example: addition of water to milk, brick dust to chilli powder, coloured chalk powder to turmeric powder, wooden dust to tea. (Any one)
Food adulteration can cause stomach ache, bacillary dysentery, giardiasis, cholera, anaemia, partial paralysis, skin abnormalities, eye problems, etc. (Any two)
One legal measure-Prevention of Food Adulteration Act or Food Safety and Standards Act.
- (b) (1) Term loans or outright loans
(2) Cash Credit
(3) Over draft facility
(4) Discounting of bills. (Any two)

Question 9

- (a) Why is the income of an entrepreneur residual in nature? Discuss any *three* functions of an entrepreneur. [5]
- (b) Distinguish between:
- (i) *Voluntary debt* and *Compulsory debt*.
 - (ii) *Regressive tax* and *Degressive tax*. [5]

Examiners' Comments

- (a) The *functions* of an entrepreneur were well explained by most candidates. Many however did not answer the first part of the question correctly while others were confused by the phrase 'residual in nature'
- (b) The difference between Regressive and Degressive taxes was answered correctly by most candidates.

A few candidates were unaware about the nature of Voluntary Debts.

Suggestions for teachers

- The difference between *labourer* and the *entrepreneur* should be referred to as in the nature of their rewards. This will enable students to understand why the income of the entrepreneur is residual in nature.
- Difference between concepts should be explained thoroughly. This will be possible if concepts are taught effectively and from all possible perspectives / angles, so that any question based on it can be answered correctly by students.

MARKING SCHEME

Question 9.

- (a) All factors of production other than enterprise i.e. land, labour and capital are engaged on the basis of contractual income. The profit of the entrepreneur is generated only after the payments are made to the other factors employed by him. Thus the income is residual in nature.
Functions: Planning of business activity, organising business activity, taking risks and uncertainty, decision making, selling or marketing activities, coordination and overall supervision, budgeting or financial planning. (Any three)

(b)

<u>Voluntary Debt</u>	<u>Compulsory Debt</u>
Debt raised by the Govt. without putting any compulsion on the buyers of Govt. bonds. The lenders are free to subscribe any amount that they please.	Debt raised by the Govt. under compulsion. This compulsion may be exerted during emergencies like war and during inflation when the govt. wants to reduce the volume of purchasing power in the hands of the people.
<u>Regressive Tax</u>	<u>Degressive Tax</u>
The tax system is called regressive if the average tax rate decreases as income increases e.g. if a person who earns ₹1000.00 per year pays 10% as tax and a person who earns ₹2,000.00 pays 7.5% as tax.	It is mixture of proportional and progressive system. Under this system the rate of tax increases upto a certain limit but after that a uniform rate is charged. For e.g. 10% for income between ₹1,80,001 to ₹3,00,000 a year, 20% for the income between ₹3,00,001 to ₹8,00,000 a year and 30% for income above ₹8,00,000.

Question 10

- (a) Define a tax. Explain briefly *two* merits and *two* demerits of direct taxes. [5]
- (b) What is inflation? Discuss the effects of inflation on:
- (i) Fixed income groups.
 - (ii) Producers. [5]

Examiners' Comments

- (a) This question was answered correctly by most candidates. Only a few committed errors. The merits and demerits of direct taxes were answered correctly by most candidates.
- (b) Most candidates were unable to write a complete explanation of inflation, that means a *consistent/sustained rise in the price level in an economy*.
Most candidates answered the effects of inflation on Fixed Income groups correctly, but failed to do so when explaining its effect on Producers.

Suggestions for teachers

- An important topic in today's context, it can be made more interesting by quoting various examples related to economic activities involving income and expenditure of households.
- The topic of Inflation should be taught in detail. Taxes such as Sales/VAT should be discussed in class to familiarize students with these terms.
- Use of examples will further reinforce their understanding.

MARKING SCHEME

Question 10.

- (a) A tax is a compulsory payment imposed on the persons or companies by the Govt. to meet the expenditure incurred on providing common benefit to the people.

Merits	Demerits
1. Economy	1. Unpopular
2. Equity	2. Inconvenience
3. Certainty	3. Possibility of evasion
4. Elasticity	4. Uneconomical
5. Civic Consciousness	5. Arbitrary
6. Reduction in inequality	6. Narrow in scope.

(two each of the above mentioned should be clearly explained)

- (b) Inflation is defined as a sustained increase in the aggregate price level.
- (i) Fixed income group: Wage and salary earners are the people who belong to fixed income group. They suffer a lot, it is because wage and salaries do not increase in the same proportion in which price rises. As a result fixed income earners tend to buy less amount of goods and services than before. So inflation increases economic burden on these people.
 - (ii) Producers: Producers earn huge profits.
 - (1) Price of their inventories goes up thereby increasing their profits.
 - (2) Price rise is faster than rise in cost of production.

Topics / Concepts found confusing/difficult:

- Important economic terms like SLR and CRR
- Elasticity of Demand
- Importance of educating the consumers.
- Regressive, Degressive and Progressive taxation.
- Public Debt as an important tool of economic development
- Impact and incidence of taxes.
- Expenditure tax.
- Role of money (i.e the secondary functions.)
- Functions of the Central Bank
- Measures to control Inflation
- Taxation as an instrument to curb inflation.

Suggestions for students:

- Learn and revise each topic on a regular basis.
- The regular use of spoken English will help understand the question.
- Diagrams/graphs, must be practiced by drawing them regularly.
- Practice writing of answers along with examples.
- Keywords should be used to remember the answers.
- Avoid selective study.
- Solving of previous years Question papers ensures better response and understanding.
- Answers should be brief and specific.
- Questions on '**Differentiate between**' should be answered preferably in a tabular form under the correct headings.
- Check answers after completion to detect errors.

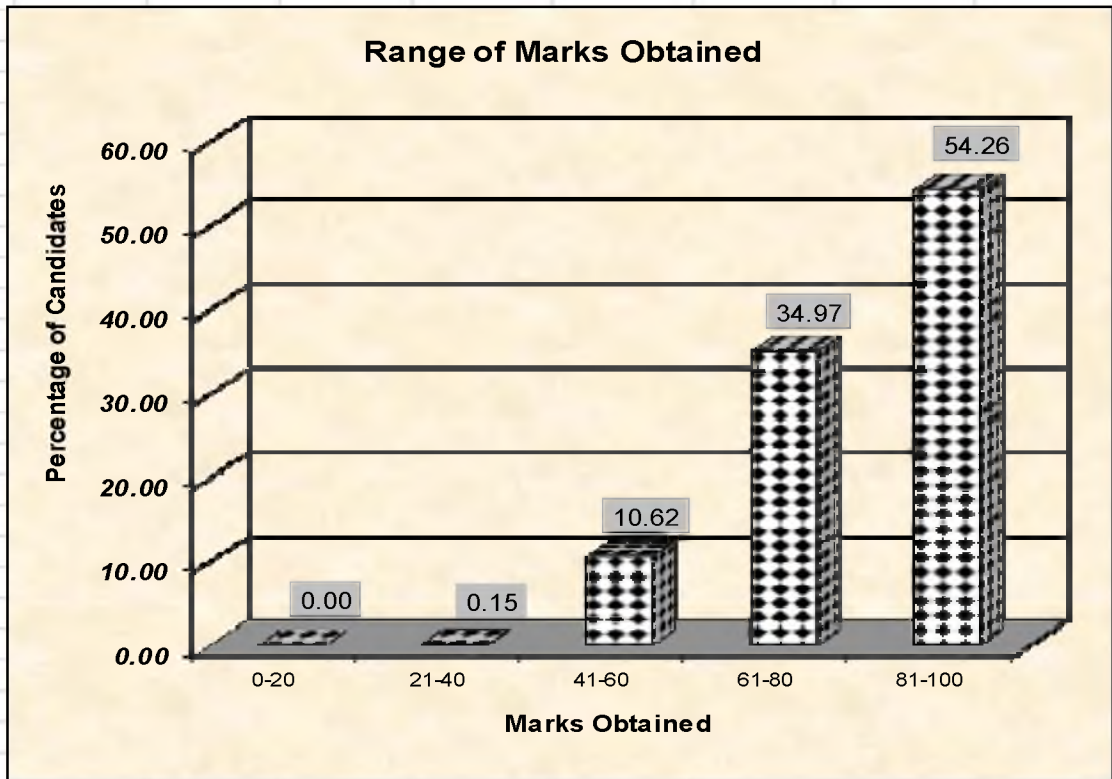
COMPUTER APPLICATIONS

STATISTICS AT A GLANCE

Total Number of students who took the examination	86,618
Highest Marks Obtained	100
Lowest Marks Obtained	2
Mean Marks Obtained	80.9

Percentage of Candidates according to marks obtained

Details	Mark Range				
	0-20	21-40	41-60	61-80	81-100
Number of Candidates	4	132	9197	30289	46996
Percentage of Candidates	0.00	0.15	10.62	34.97	54.26
Cumulative Number	4	136	9333	39622	86618
Cumulative Percentage	0.00	0.16	10.77	45.74	100.00



COMPUTER APPLICATIONS

ANALYSIS OF PERFORMANCE

Question 1

- (a) What is meant by precedence of operators? [2]
- (b) What is a literal? [2]
- (c) State the Java concept that is implemented through:
- (i) a superclass and a subclass
 - (ii) the act of representing essential features without including background details. [2]
- (d) Give a difference between a constructor and a method. [2]
- (e) What are the types of casting shown by the following examples?
- (i) `double x = 15.2;`
`int y = (int)x;`
 - (ii) `int x = 12;`
`long y = x;` [2]

Examiners' Comments

- (a) Most candidates were unfamiliar with the term *operator precedence*. Some candidates wrote the types of operators, while a few mentioned the operators in order.
- (b) Most candidates answered this question correctly.
- (c) (i) Most candidates did not have a clear concept of the feature of object oriented programming that is implemented through super class and subclass.
(ii) Candidates were able to answer the second part of the question correctly.
- (d) Most candidates answered correctly. In some answers, the difference between a constructor and a method was interchanged.
- (e) Some candidates were unsure of the answer. They seem to have overlooked the mention of `(int)x` in the question and mixed up the answers.

Suggestions for teachers

- Explain how an expression is evaluated with examples and the relevant terms related to it.
- Revise the previous year (Class - IX) syllabus (Java fundamentals) at the beginning of the session.
- Explain the features of object oriented programming by referring to real life examples.
- Teach differences between a constructor and method with the help of examples.
- Explain each type of conversion with proper examples and point out the difference between them.

MARKING SCHEME

Question – 1

- (a) Operator precedence determines how an expression gets evaluated OR It is a set of rules that establishes which operators gets evaluated first and how operators with in the same precedence level associate.
- (b) A literal is a sequence of characters used in a program to represent a constant value. OR
A literal is a way of writing a value.
For example 'A' is a literal that represents the value A , of type char, and 15L is a literal that represents the number 15 as a value of type long
- (c) (i) Inheritance
(ii) Abstraction, Data Abstraction
- (d) Any two of the following:
- | Constructor | Method |
|---------------------------------|---|
| Same name as the class | Name is different from class name |
| Has no return type | Has a return type |
| Invoked using new operator | Invoked using dot operator |
| Invoked when object is created | Invoked at function call |
| Specifies how object is created | Specifies operations that objects perform |
- (e) (i) Explicit OR explicit conversion OR explicit type casting
(ii) Implicit OR implicit conversion OR implicit type casting

Question 2

- (a) Name any two wrapper classes. [2]
- (b) What is the difference between a *break* statement and a *continue* statement when they occur in a loop? [2]
- (c) Write statements to show how finding the length of a character array *char[]* differs from finding the length of a String object *str*. [2]
- (d) Name the Java keyword that:
- (i) indicates that a method has no return type
- (ii) stores the address of the currently - calling object. [2]
- (e) What is an exception? [2]

Examiners' Comments:

- (a) Most candidates were able to answer this question correctly. However, some candidates wrote the names of primitive data type instead of writing wrapper class.
- (b) Most candidates explained the use of *break* statement with the help of an example. Some candidates explained the use of *break* when it occurs in switch...case statement which was not required as per the question. Only a few could write the correct explanation and example for *continue* statement.
- (c) Most candidates were unable to understand one part of the question and wrote incorrect answers.
- (d) (i) Most candidates wrote correct answers.
(ii) Many candidates answered this question correctly. A few candidates however wrote incorrect answers like *new/pass by reference*.
- (e) This question was correctly answered by most candidates. Some however were unclear as they wrote on exception handling and the keyword used to remove the exception.

Suggestions for teachers

- Refrain from teaching all programs using Parameterized method. Explain the uses of wrapper class and its methods.
- Advise students to read questions carefully and revise their work.
- Highlight the difference between break and continue statement with examples.
- Advise students to read the question carefully before answering.
- Explain the use of key word 'this' with the help of example programs.

MARKING SCHEME

Question - 2

- (a) Any two of the following: Boolean, Byte, Character, Short, Integer, Long, Float, Double.
Each must begin with upper case letter.
- (b) break – Causes immediate exit from the loop OR terminates loop OR resumes program execution at the statement immediately following the current statement.
Continue – Causes the remainder of the current iteration to be skipped OR resumes loop OR resumes program execution at the end of the current loop.
- (c) char.length OR length of character array is obtained from its length field.
str.length() OR length of a String object is obtained from its length() method.
- (d) (i) void
(ii) this
- (e) An error OR event that occurs during runtime OR during program execution, that prevents the program from continuing normally OR disrupts the normal flow of the program's instructions.

Question 3

- (a) Write a Java statement to create an object *mp4* of class *digital*. [2]
- (b) State the values stored in the variables *str1* and *str2*
- ```
String s1= "good"; String s2= "world matters";
String str1=s2.substring(5).replace('t', 'n');
String str2=s1.concat(str1);
```
- [2]

- (c) What does a class encapsulate? [2]
- (d) Rewrite the following program segment using the if...else statement  
`comm =(sale>15000) ? sale×5/100 : 0;` [2]
- (e) How many times will the following loop execute? What value will be returned?  
`int x=2,y=50;`  
`do {`  
`++x;`  
`y-=x++;`  
`} while(x<=10);`  
`return y;` [2]
- (f) What is the data type that the following library functions return?  
 (i) `isWhitespace(char ch)`  
 (ii) `Math.random()` [2]
- (g) Write a Java expression for  $ut + \frac{1}{2}ft^2$  [2]
- (h) If `int n[]={1,2,3,5,7,9,13,16}`, what are the values of `x` and `y`?  
`x=Math.pow(n[4],n[2]);`  
`y=Math.sqrt(n[5]+n[7]);` [2]
- (i) What is the final value of `ctr` when the iteration process given below, executes?  
`int ctr=0;`  
`for(int i=1;i<=5;i++)`  
`for(int j=1;j<=5;j+=2)`  
`++ctr;` [2]
- (j) Name the methods of `Scanner` class that:  
 (i) is used to input an integer data from the standard input stream  
 (ii) is used to input a String data from the standard input stream. [2]

#### Examiners' Comments

- (a) This question was answered correctly by most candidates. However, there were a few candidates who had interchanged the names of the class and the object given in the question.
- (b) A few candidates answered correctly. However a few lacked knowledge of string functions.

#### Suggestions for teachers

- Creating an object of a class should be taught with examples.
- String function should be taught thoroughly.

- (c) Most candidates wrote the correct answer. Some however misunderstood the question and wrote the definition of encapsulation instead of writing the components that a class encapsulates.
- (d) Most candidates answered correctly.
- (e) Quite a few candidates were unable to analyze loop structure. Others did not seem to know the short hand operators and the difference between post increment and pre increment operator.
- (f) (i) Many candidates answered correctly .  
(ii) Most candidates could not write the correct answer. They wrote *int* as the answer instead of *double*.
- (g) This question was correctly answered by most candidates. A few lost marks due to a missing asterisk or a wrong division symbol.
- (h) This question was answered correctly only by a few candidates as concepts of array with in a mathematical function was not understood by most candidates.
- (i) Only a few candidates answered the question correctly. A number of candidates were unclear about the concept of nested loop when it is used without the curly brackets.
- (j) Most candidates wrote the first part of the question correctly. However, in many cases the second part remained unanswered or incorrect answers were written.

Suggestions for teachers

- Provide more practice in iterative subroutines where candidates have to predict the output especially using looping statements.
- Emphasize on the output return type of all the mathematical functions given in the syllabus.
- Additional practice should be given in the writing arithmetic expressions in JAVA.
- Teach how to substitute the values, if an address of array element is given.
- Teach the working of nested loop with or without curly brackets.

**MARKING SCHEME**

**Question - 3**

- (a) `digital mp4=new digital();`  
`digital mp4`  
`= new digital();`
- (b) `str1= "manners"`  
`str2= "good manners"`
- (c) An class encapsulates data members that contain the information necessary to represent the class and member functions that performs operations on the data members.
- (d) `if(sale>15000)`  
`comm= sale×5/100;`  
`else`  
`comm = 0;`
- (e) Number of times loop executes: 5  
Value returned: 15
- (f) (i) boolean  
(ii)double



- (g)  $u \times t + 1/2 \times \text{Math.pow}(t, 2)$
- (h)  $x=343.0$  or  $x=343$   
 $y=5.0$  or  $x=5$
- (i)  $\text{ctr}=15$
- (j) (i) `nextInt()`  
(ii) `next()` OR `nextLine()`

#### Question 4

Define a class named **FruitJuice** with the following description:

Instance variables/data members:

- `int product_code` - stores the product code number
- `String flavour` - stores the flavour of the juice (E.g. orange, apple, etc.)
- `String pack_type` - stores the type of packaging (E.g. tetra-pack, PET bottle, etc.)
- `int pack_size` - stores package size (E.g. 200 ml, 400 ml, etc.)
- `int product_price` - stores the price of the product

Member methods:

- (i) `FruitJuice()` - Default constructor to initialize integer data members to 0 and String data members to "".
- (ii) `void input()` - To input and store the product code, flavour, pack type, pack size and product price.
- (iii) `void discount()` - To reduce the product price by 10.
- (iv) `void display()` - To display the product code, flavour, pack type, pack size and product price.

[15]

#### Examiners' Comments

Numerous types of errors were committed in this question, namely

- (i) Using a different class name than the one given in the question.
- (ii) A single function used instead of the ones asked for in the question.
- (iii) Transferring the formal parameter values to data members done incorrectly.
- (iv) Syntax of constructor was incorrect.
- (v) Calculations done using local variable instead of instance variables.

#### Suggestions for teachers

- Teach students constructors and functions.
- Students must write programs involving multiple functions.
- Explain the difference between instance variables and local variables.
- Instruct students to read the questions carefully before answering and they must use the class name, etc., as given in the question.

#### MARKING SCHEME

**Question - 4**

```
import java.io.*; //import java.util.*;
public class FruitJuice
{int product_code, pack_size, product_price;
 String flavour, pack_type;

 BufferedReader br=new BufferedReader(new
 InputStreamReader(System.in));
 //Scanner sc=new Scanner(System.in);

 public FruitJuice()

 { product_code=pack_size=product_price=0;
 flavour=pack_type="";
 }

 public void input() throws
 IOException //throws InputMismatchException

 { System.out.println("Enter product code");
 product_code=Integer.parseInt(br.readLine()); //
 sc.nextInt();
 System.out.println("Enter flavour");
 flavour=br.readLine(); // sc.next();
 System.out.println("Enter pack type");
 pack_type=br.readLine(); // sc.next();
 System.out.println("Enter pack size in ml");
 pack_size=Integer.parseInt(br.readLine()); //
 sc.nextInt();
 System.out.println("Enter product price");
 product_price=Integer.parseInt(br.readLine()); //
```

```

sc.nextInt(); }
public void discount()
 {
product_price -=10;

 }
public void display()
 {
System.out.println("Product code="+product_code);
System.out.println("Flavour="+flavour);
System.out.println("Pack type="+pack_type);
System.out.println("Pack size in ml="+pack_size);
System.out.println("Product price =
INR"+product_price);
 }
public static void main()throws IOException
 {
fruitJuice object = new fruitJuice();

object.input();
object.discount();
object.display();

 }
}

```

### Question 5

The International Standard Book Number (ISBN) is a unique numeric book identifier which is printed on every book. The ISBN is based upon a 10-digit code. The ISBN is legal if:

$1 \times \text{digit}_1 + 2 \times \text{digit}_2 + 3 \times \text{digit}_3 + 4 \times \text{digit}_4 + 5 \times \text{digit}_5 + 6 \times \text{digit}_6 + 7 \times \text{digit}_7 + 8 \times \text{digit}_8 + 9 \times \text{digit}_9 + 10 \times \text{digit}_{10}$  is divisible by 11.

Example: For an ISBN 1401601499

Sum= $1 \times 1 + 2 \times 4 + 3 \times 0 + 4 \times 1 + 5 \times 6 + 6 \times 0 + 7 \times 1 + 8 \times 4 + 9 \times 9 + 10 \times 9 = 253$  which is divisible by 11.

Write a program to:

- (i) Input the ISBN code as a 10-digit integer.
- (ii) If the ISBN is not a 10-digit integer, output the message, "Illegal ISBN" and terminate the program.
- (iii) If the number is 10-digit, extract the digits of the number and compute the sum as explained above.

If the sum is divisible by 11, output the message, "Legal ISBN". If the sum is not divisible by 11, output the message, "Illegal ISBN".

[15]

Examiners' Comments:

Only a few candidates answered this question correctly. Common errors observed were:

- (i) Ten digit code is accepted mostly as int or double data type instead of long data type.
- (ii) Checking for 10 digit code is wrong.
- (iii) Accepted the number as String and was not converted into a number before doing the calculation.
- (iv) In case of calculating sum, candidates used loop incorrectly.
- (v) Loop used to multiply the extracted digits started from 1 to 10 instead of 10 to 1.

```
for(i=1 ; i<=10;i++) {
 digit=n%10
 s+=digit*i; n=n/10; }
```

Suggestions for teachers

- Adequate practice should be given to students on programs using extraction and counting of digits.
- Students should be taught the technique to convert a String data to a primitive data type.

**MARKING SCHEME**

**Question - 5**

```
public class ISBN
{
 public void sampleMethod(long num)
 {longi,digit,sum=0;
if(num>9999999999L || num<1000000000L)
```

```

System.out.println("Illegal ISBN");
else
 {for(i=10;i>=1;i--)
 {digit=num%10;
 sum+=digit*i;
num=num/10;
 }
 if(sum%11==0)
System.out.println("Legal ISBN");
 else
 System.out.println("Illegal ISBN");
 }
}
}
}

```

### Question 6

Write a program that encodes a word into *Piglatin*. To translate word into a *Piglatin* word, convert the word into uppercase and then place the first vowel of the original word as the start of the new word along with the remaining alphabets. The alphabets present before the vowel being shifted towards the end followed by “AY”.

Sample input (1) : London,      Sample output (1) : ONDONLAY

Sample input (2) : Olympics,      Sample output (2) : OLYMPICSAY

[15]

#### Examiners’ comments:

Many candidates committed the following errors

- (i) String literal which is input from the user was not converted to uppercase.
- (ii) Break Statement was missing.
- (iii) Loop taken up to the length() instead of length()-1.
- (iv) Mistakes in the syntax of string functions.
- (v) Printing was done inside the loop.

#### Suggestions for teachers

- All commonly used string functions should be taught with example programs. Regular practice should be given in programs using string manipulation.
- Students should be taught how to extract words from a sentence.
- Explain how the index of characters positioned in a string constant.

## MARKING SCHEME

### Question - 6

```
import java.io.*;
class Piglatin
{
public static void main(String []args) throws IOException
{
 BufferedReader br=new BufferedReader(new InputStreamReader(System.in));
 // Scanner br=new Scanner(System.in);
System.out.println("Enter a word");
String s=br.readLine();//br.next(); //paramterized input
int x,y;
String c,d;
char b;
s=s.toUpperCase();
x=s.length();
System.out.println(" The piglaitn word of the given string is ");
for(y=0;y<x;y++)
{
 b=s.charAt(y);
 if(b=='A'||b=='E'||b=='I'||b=='O'||b=='U')
 break;
}
c=s.substring(y,x);
d=s.substring(0,y);
System.out.println(c+d+"AY");
}
}
```

### Question 7

Write a program to input 10 integer elements in an array and sort them in descending order using the bubble sort technique.

[15]

### Examiners' Comments

Common Mistakes made by most candidates were:

- (i) Selection sort technique was used instead of bubble sort technique.
- (ii) Ascending order in place of descending order.
- (iii) Syntax error in declaring or creating an array `int a[] = new int a[10];`
- (iv) Array elements are assigned that are not accepted from the user.
- (v) Array elements are not displayed after sorting.

### Suggestions for teachers

- Common errors should be highlighted to enable them to be rectified.
- Advise students to read the question carefully.
- Pupils must be told to avoid careless mistakes when declaring arrays.
- Both bubble sort and selection sort techniques must be discussed and the difference between them must be explained clearly.

## MARKING SCHEME

### Question - 7

**Qu import java.io.\*;**

class bubble

```
{
 public static void main(String args[])throws IOException
 {
 BufferedReader br=new BufferedReader(new InputStreamReader(System.in));

 int a[]=new int[10];
 System.out.println("Enter 10 elements");
 for(int k=0;k<10;k++)
 {
 a[k]=Integer.parseInt(br.readLine());
 }
 int temp;
 for(int i=0;i<9;i++)
 {
 for(int j=0;j<9-i;j++)
 {
 if(a[j]<a[j+1])
 {
 temp=a[j];
```

```

 a[j]=a[j+1];
 a[j+1]=temp;
 }
}

System.out.println("Sorted elements are");
for(int k=0;k<10;k++)
{
 System.out.println(a[k]);
}
}
}

```

### Question 8

Design a class to overload a function series() as follows:

- (i) double series(double  $n$ ) with one double argument and returns the sum of the series,

$$\text{sum} = \frac{1}{1} + \frac{1}{2} + \frac{1}{3} + \dots + \frac{1}{n}$$

- (ii) double series(double  $a$ , double  $n$ ) with two double arguments and returns the sum of the series,

$$\text{sum} = \frac{1}{a^2} + \frac{4}{a^5} + \frac{7}{a^8} + \frac{10}{a^{11}} + \dots \text{to } n \text{ terms}$$

[15]

#### Examiners' comments

Common mistakes observed were:

- (i) Function overloading concept was not followed, two separate programs were written.
- (ii) Using *void* instead of *double* as return type.
- (iii) Candidates accepted the values from the user with in the function instead of accepting them as parameters.
- (iv) Declaration and Initialization of variable *sum* which is used to accumulate the value of the fractions is not done properly.
- (v) Instead of repeating the loop 'n' number of times the loop was repeated considering 'n' as the final value to be checked for.

#### Suggestions for teachers

- Function overloading concept should be taught to students clearly.
- Students need to be explained about when nested loop should be used.
- Advise students to read the question carefully and follow instructions.
- Teach students when *double* data type is used and how to initialize it with default values.
- Explain the importance of typecasting when finding the sum of real numbers is involved.



## MARKING SCHEME

### Question 8

```
public class overload
{
 double sum, numerator, denominator, fraction;
 int i, j;
 public double series(double n)
 {
 sum=0.0; numerator=1.0;
 for(i=1; i<=n; i++)
 {
 denominator=(double)i;
 fraction=numerator/denominator; sum+=fraction;
 }
 return sum;
 }
 public double series(double a, double n)
 {
 sum=0; denominator=1.0;
 for(i=1; i<=n; i=i+3)
 denominator=Math.pow(a, (i+1));
 fraction=i/denominator;
 sum+=fraction;
 }
 return sum;
}
}}
```

### Question 9

Using the switch statement, write a menu driven program:

- (i) To check and display whether a number input by the user is a composite number or not (A number is said to be a composite, if it has one or more than one factor excluding 1 and the number itself).

Example : 4, 6, 8, 9 ...

- (ii) To find the smallest digit of an integer that is input.

Sample input : 6524

Sample output : Smallest digit is 2

For an incorrect choice, an appropriate error message should be displayed.

[15]

Examiners' comments:

A number of candidates misunderstood the question and wrote two separate programs without it being menu - driven. A large number of candidates wrote the first part of the question correctly whereas for the second part of the question, they used complicated logic and thereby made mistakes: Other commonly made errors were:

- (i) Break statement not used with switch... case.
- (ii) Checking for number factors for composite program was done correctly.
- (iii) Zero (0) was assumed to be the smallest digit and compared with digits of the given number.

Suggestions for teachers

- Sufficient practice must be given on writing menu - driven programs.
- Number problems like composite number and finding smallest digit of a given number should be taught to the students.

**MARKING SCHEME**

**Question 9**

```
import java.io.*;
import java.util.*;
class overload
{
public static void main(String [] args)
{
 Scanner obj=new Scanner (System.in);
 System.out.println("Enter a number");
 int num=obj.nextInt();
 System.out.println("Menu");
 System.out.println("1.COMPOSITE NUMBER OR NOT ");
 System.out.println("2.SMALLEST DIGIT");
 System.out.println("Enter you choice ");
 int choice =obj.nextInt();
 switch(choice)
 {
 case 1:
 int c=0;
 for(int i=2;i<=num/2;i++)
```

```

 {
 if(num%i==0)
 c=c+1;
 }
 if(c>1)
 System.out.println(num+" is a composite number");
 else
 System.out.println(num+" is not a composite number");
 break;
 case 2:
 int smallest=9,digit;
 while(num!=0)
 {
 digit=num%10;
 if(digit<smallest)
 smallest=digit;
 num=num/10;
 }
 System.out.println("smallest digit is "+smallest);
 break;
 default :
 System.out.println("Invalid choice");
 }
}
}
}

```

### **Topics /Concepts found difficult**

- Precedence of operators
- Wrapper class.
- Creating an object.
- Nested string functions.
- Analyzing the output of a do...while(); loop.
- Nested for( ) loop without braces.
- Return type of Math.random().
- Scanner class.

### **Suggestions for students**

- Read the question carefully before answering.
- Do not forget to write the question number.
- Practice several programs on the computer.
- Answers and definitions should be short and precise according to the marks allotted.
- In programming, variable description is compulsory and should be mentioned with program.
- Do not memorize the program, try to understand the logic.
- Avoid terms/ words like SOP, SOPLN, PSVM, etc., for System.out.print.
- System.out.println, public static void main.
- In Section B, do not write the answer of any question twice, either repeating the same program or writing the program with a different logic.

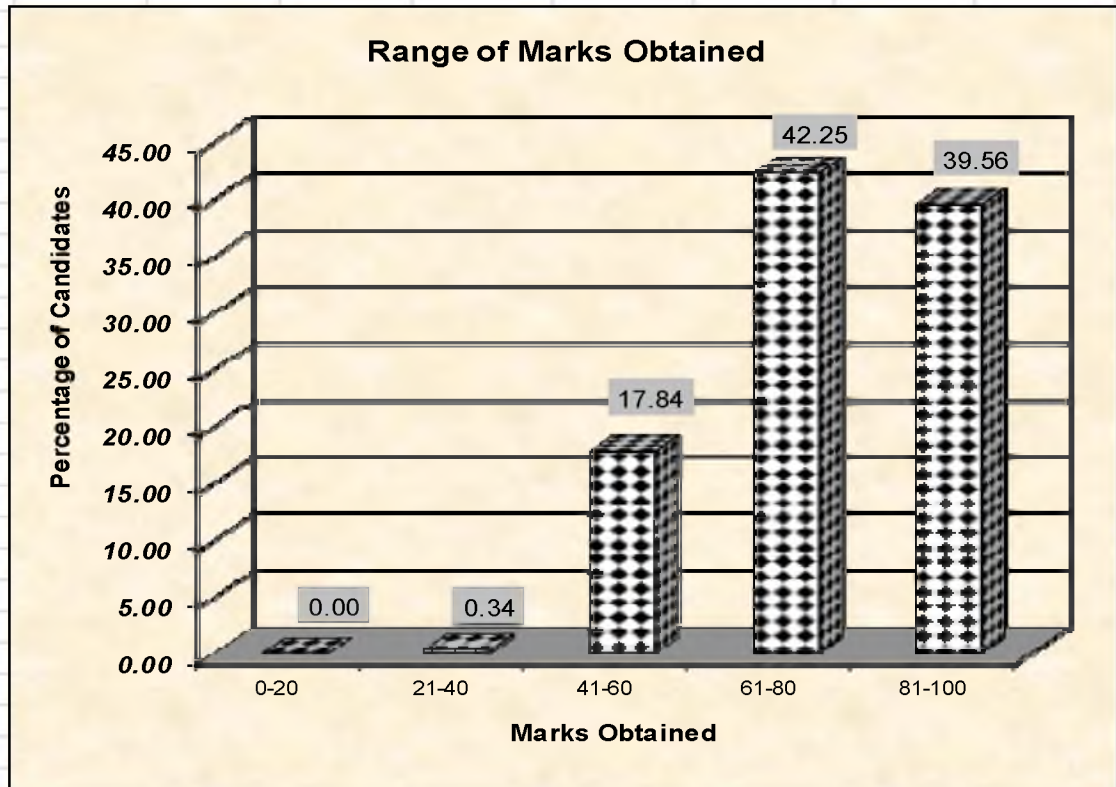
# ECONOMIC APPLICATIONS

## STATISTICS AT A GLANCE

|                                                   |        |
|---------------------------------------------------|--------|
| Total Number of students who took the examination | 13,985 |
| Highest Marks Obtained                            | 100    |
| Lowest Marks Obtained                             | 29     |
| Mean Marks Obtained                               | 75.83  |

### Percentage of Candidates according to marks obtained

| Details                  | Mark Range |       |       |       |        |
|--------------------------|------------|-------|-------|-------|--------|
|                          | 0-20       | 21-40 | 41-60 | 61-80 | 81-100 |
| Number of Candidates     | 0          | 48    | 2495  | 5909  | 5533   |
| Percentage of Candidates | 0.00       | 0.34  | 17.84 | 42.25 | 39.56  |
| Cumulative Number        | 0          | 48    | 2543  | 8452  | 13985  |
| Cumulative Percentage    | 0.00       | 0.34  | 18.18 | 60.44 | 100.00 |



## ECONOMIC APPLICATIONS

### ANALYSIS OF PERFORMANCE

#### Question 1

- (a) With the help of a diagram show how a market demand curve can be obtained from individual demand curves. [2]
- (b) Which section of society is worst affected during inflation? Briefly explain. [2]
- (c) Mention *one* way by which Government policy can ensure social justice. [2]
- (d) There are no substitute goods in a Monopoly market. Give a reason to support your answer. [2]
- (e) Briefly explain the impact of constructing dams on the ecosystem. [2]

#### Examiners' Comments

- (a) A few candidates answered the question correctly however many failed to draw the lateral summation of the demand curves. Others drew separate diagrams with a few drawing only the schedules.
- (b) Some candidates failed to mention “fixed income groups” while others were unable to explain why they were the worst affected. The term “real income” was written by very few candidates.
- (c) Most candidates stated taxation as a measure to ensure social justice, however they failed to mention about ‘progressive’ taxation. A few wrote about Wage Policy but failed to explain how it brought about social justice. Explanations were inadequate in many cases.
- (d) Most candidates failed to apply and write why there were no substitute goods in a monopoly market. They failed to correlate the fact that entry is restricted in a monopoly market.
- (e) Candidates wrote answers that were general in nature. Many candidates wrote positive aspects rather than negative impacts.

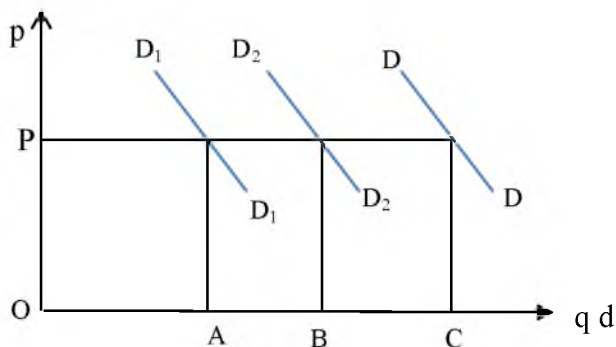
#### Suggestions for teachers

- Stress on the importance of drawing correct demand and supply curves. Ensure adequate practice in drawing proper labelled diagrams.
- Use proper economic terms such as ‘real income’ while explaining and ensure students use these terms while writing answers.
- Emphasise that brief explanations are a must in order to bring out their understanding.
- Instruct students to avoid selective study and attach importance to all topics.

## MARKING SCHEME

### Question 1.

- a) At price  $OP$  market demand  $OC$  is equal to  $OA+OB$ . If the same process is repeated for each price level the market demand curve  $DD$  is obtained. It is obtained by the lateral summation of individual demand curves.



- b) The fixed income groups are worst affected during inflation.  
Given the money income of this group the real income falls due to increase in price level.
- c) (1) Poverty alleviation programmes.  
(2) Creation of employment opportunities.  
(3) Introduction of development programs  
(4) Imposition of progressive direct tax.  
(5) Redistribution of agricultural land  
(6) Introduction of social security. (Or any other relevant point)
- (Any one of the above mentioned should be explained briefly)
- d) Monopoly market is devoid of competition and therefore no substitute goods.
- e) (1) Inundation of forest areas – construction of dams and water reservoirs often leads to an inundation of vast forest lands. So, the natural habitats of a large variety of insects, reptiles, microorganisms etc., are destroyed and this leads to degradation of the eco system.  
(2) Blocking the flow of river water – Blocking the flow of the river water alters ecological condition of the river adversely affecting the fresh water ecosystem. It affects marine life.  
(Explain this in brief)

## Question 2

- (a) Briefly explain why labour is considered to be the means and end of production. [2]
- (b) Distinguish between *Joint* demand and *Composite* demand. [2]
- (c) State *two* reasons for low capital formation in a developing economy. [2]
- (d) State *one* difference between *Monopsony* and *Monopolistic competition*. [2]
- (e) Classify the following capital goods:
- |                |                  |
|----------------|------------------|
| (i) Machines   | (ii) Cotton yarn |
| (iii) Oil mill | (iv) bridge      |
- [2]

### Examiners' Comments

- (a) Most candidates relate to labour being an active factor of production and therefore a means of production, however they were unable to explain labour as an end of production.
- (b) Most candidates correctly answered this question. A few however got confused and wrote irrelevant examples.
- (c) This question was answered correctly by most candidates. Explanations were, however, not satisfactory in some cases.
- (d) Many candidates were unable to distinguish between the two types of markets and wrote incorrect answers.
- (e) This question was not comprehended by most candidates and this resulted in an incorrect classification of capital goods.

### Suggestions for teachers

- Ensure a complete comprehension of topics that requires a thorough explanation. Use flow charts to streamline and understand the process of production and consumption.
- These concepts must be explained with the help of suitable examples.
- Students must be given adequate practice in writing specific answers.
- Teach market forms using comparative charts emphasising on the features of each market form.
- Assign adequate practice on tackling application based questions.



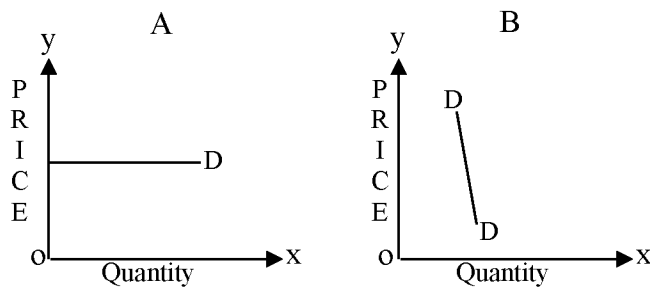
## MARKING SCHEME

### Question 2.

- a) Labour produces goods and services and demand for goods and services originates from labour.
- b) When demand for different complementary goods are created at a time it is known as joint demand. E.g. demand for tea leading to demand for tea leaves, water, milk, sugar, etc. Composite demand on the other hand refers to demand for a commodity which can be put into alternative uses. E.g. demand for steel – which is used for building bodies of buses, cars, etc. for making surgical equipment, for construction purpose, for making utensils, etc.
- c) (1) Low level of savings  
(2) Lack of willingness to save  
(3) Less opportunity to save  
(4) Inadequate mobilization of savings  
(5) Low investment opportunities.  
(6) Higher tax burden
- (any one of the above mentioned should be explained)
- d) Monopsony market has only one buyer and many sellers while a monopolistically competitive market there are a large number of buyers and sellers.
- e) Machines – Fixed capital  
Oil Mill – Sunk capital  
Cotton yarn – Circulating capital  
Bridges – Social capital

### Question 3

- (a) Indicate the degree of elasticity of demand of the following demand curves: [2]



- (b) What is meant by land use pattern? [2]

- (c) What are indirect taxes? Give an example. [2]
- (d) Define *money*. How does it act as a 'measure of value'? [2]
- (e) What is meant by an *overdraft* facility? [2]

Examiners' Comments

- (a) Candidates identified Figure A correctly but were confused regarding Figure B. Many inadvertently identified it as perfectly inelastic demand.
- (b) Explanations were unclear however many candidates wrote correct examples.
- (c) Most candidates answered this question, only a few wrote proper terms like 'shifting of burden' 'impact', 'incidence' etc.
- (d) The definition of money lacked expression. Only a few candidates clearly explained how it acts as a measure of value.
- (e) Most candidates confused the overdraft facility with that of credit cards and failed to link it with the current account.

Suggestions for teachers

- Stress on importance of correctly labelled diagrams in Theories of Demand and Supply.
- Use appropriate economic terms and instruct students to write the same during tests and examinations.
- Concepts of Money need to be explained thoroughly quoting relevant examples.
- Explain different methods of lending by Commercial Banks in a comparative manner to ensure conceptual clarity.

**MARKING SCHEME**

**Question 3.**

- a) A  $E_p = \infty$                       B  $E_p < 1$   
 Perfectly elastic.                      Inelastic
- b) Land use pattern means the way in which the human beings employ the land or the solid cover of the earth for different purposes. The common use of land are for human habitat, agriculture, horticulture, construction of roads, etc.
- c) Indirect taxes, taxes imposed on goods and services e.g. sales tax, vat, service tax, etc.
- d) Money is defined as any commodity which is generally accepted as common medium of exchange, It acts as a measure of value, with the help of money value of any good or a service can be accurately measured and it thus facilitates exchange of goods.
- e) Overdraft facility is provided to current account holders by commercial banks. According to this facility, the borrower is allowed to withdraw more than what has deposited. The excess amount withdrawn has to be repaid to the bank in a short period with interest. This facility is provided against some security.

#### Question 4

- (a) The price of milk rises from ₹ 26.00 to ₹ 30.00 per litre and its demand falls from four litres per day to two litres per day. Calculate the elasticity of demand for milk. [2]
- (b) Differentiate between an entrepreneur and labour on the basis of:
- (i) Nature of work.
  - (ii) Nature of risk involved. [2]
- (c) Distinguish between the *fiscal* and *monetary* policy of the Government. [2]
- (d) What are Public Sector Units? Mention *one* problem faced by Public Sector Units in India. [2]
- (e) What is meant by Bank Rate? How does it help in controlling the flow of credit in the economy? [2]

#### Examiners' Comments

- (a) Most candidates failed to write the formula before solving the numerical while others failed to mention whether the demand was elastic or inelastic. The values of P, Q, ΔP and ΔQ were not written correctly in many cases.
- (b) This question was answered correctly by most candidates.
- (c) Though candidates were familiar with the Fiscal policy, the Monetary policy lacked in expression and matter.
- (d) The concept of Public Sector was well understood and answered correctly by a majority of candidates.
- (e) Candidates were unable to answer this question correctly as concepts of Bank rate as an effective tool of credit control lacked conceptual clarity and hence they were unable to explain how it controls inflation.

#### Suggestions for teachers

- Allot sufficient practice to solve numericals and impress students to show the steps of working involved in solving numericals.
- Recapitulation must be conducted in a tabular form to differentiate between Monetary and Fiscal policies.
- Explain concepts with the help of a flowchart so that students understand the concepts of how the Bank rate can be used as an effective measure to control inflation.

#### **MARKING SCHEME**

#### **Question 4.**

- a)  $\frac{\Delta Q}{\Delta P} \times \frac{P}{Q} = \frac{2}{4} \times \frac{26}{4} = 3.2 \quad E_p > 1$
- b) Nature of work: Labourers get wages for their work and Entrepreneurs receive profits or any other relevant matter.  
Nature of risk : Labourers are not expected bear risk in business on the contrary the entrepreneurs have to bear all the risks.
- c) Fiscal policies are implemented by the Government. These are policies which concern public debt, public revenue and public expenditure while monetary policies are implemented

by the RBI on behalf of the Government. These policies are issued to regulate and control the flow of money in the economy.

- d) PSU's are commercial enterprises owned and controlled entirely by the Government. Problems faced are the following:
1. Objectives are not clear.
  2. They face shortage of skilled, competent and experienced manpower.
  3. Too much of Government interference in running the organisation.
  4. Underutilisation of capacity.
  5. Cost over run
  6. Improper price policy, etc. ( or any other relevant point)
- (any one of the above mentioned must be explained)
- e) Bank rate is the rate at which Central Bank rediscounts first class financial bills submitted to it by Commercial Banks. During inflation the Central Bank will raise the bank rate which will subsequently raise the lending rate of commercial banks. Increase in lending rate of commercial banks will reduce credit flow.

### Question 5

- (a) Define capital and explain three important functions of capital. [7]
- (b) 'Land is the original source of all material wealth'. In this context, explain *four* determinants that influence the productivity of land. [8]

#### Examiners' Comments

- (a) Most candidates answered the question correctly. A few however wrote the characteristics of capital instead of its functions.
- (b) This question was answered correctly by most candidates. In some cases, however the subheadings were not elaborated upon.

#### Suggestions for teachers

- Instruct students to write specific and concrete answers.
- Stress on the importance of learning and revising important definitions of economic terms.

### MARKING SCHEME

#### Question 5.

- a) Capital is defined as "Produced means of production" (Or any other definition could be accepted.)
- Functions of capital:
- It fosters economic development
  - It keeps production process uninterrupted
  - It helps in the process of division of labour
  - It generates greater employment opportunities.
- (Or any other relevant points) ( any 3 points should be explained)
- b) Four determinants of productivity of land:
- Fertility of land

- Proper use of land
- Investment of land
- Security of tenancy
- Location of land
- Factor inputs applied on land
- Method of cultivation

(any four of the above mentioned or any other determinants which are relevant should be clearly explained)

### Question 6

- (a) Explain the following functions of the Central Bank of a country:
- (i) Acting as a ‘Banker to the Government’.
  - (ii) Fixation of margin requirement on secured loans.
  - (iii) Developmental Functions. [8]
- (b) What is meant by *Ecosystem*? Explain *three* adverse effects of mining on the ecosystem. [7]

### Examiners’ Comments

- (a) (i) Most candidates wrote unsatisfactory explanations with a few writing the “banker to Commercial Bank” function that was not part of the question.
- (ii) Many candidates were unaware of the term ‘margin’ and hence were unable to answer correctly.
- (iii) This question was answered in a generalised manner with candidates failing to write specific examples like NABARD, IDBI, EXIM banks.
- (b) Candidates wrote correct definitions however, they could not explain the adverse effects of mining clearly. Many candidates wrote general answers making it evident that they had not revised the chapter in detail.

### Suggestions for teachers

- Explanations should be specific with examples and illustrations to make students understand and comprehend banking terms and concepts.
- Emphasise on the need to read all relevant chapters and to avoid selective study.
- Learn all topics within the scope of the syllabus.

### **MARKING SCHEME**

#### **Question 6.**

- a) (i) Central Bank renders useful service to the Government of India in the capacity of its banker, agent and advisers. All funds of the Central and state governments are kept with the Central Bank. Central Bank manages short term debts for the Government. It advises the government on matters relating to banking and financial matters.
- (ii) The margin is the difference between the ‘loan value’ and the ‘market value’ of securities offered by borrowers against secured loans. By prescribing the margin requirement on secured loans central bank does not permit the commercial banks to lend to their customers the full value of securities offered by them but only a part of their market value.

(iii) Developmental functions: In India the Central Bank of India/ the RBI has a special department for agricultural credit, this work is done by NABARD. RBI also provides funds to various financial institutions for granting loans and other financial facilities to various sectors of the economy.

b) Ecosystem means a system that results from the integration of all living and non-living factors of the environment.

Adverse effect on mining on the ecosystem:

- Deforestation
- Huge discharge of sediments
- Dumping of waste material after minerals have been extracted.
- Contamination of ground water with toxins.
- Mining consumes huge amount of energy.
- Coal mines release methane which pollutes the environment.

(Any three points)

### Question 7

(a) 'Efficient labour force is an important economic ingredient'. In this context, define efficiency of labour.

Explain *three* factors that determine the efficiency of labour.

[8]

(b) Define a Commercial Bank. Explain *three* methods adopted by Commercial Banks to mobilise funds from the public.

[7]

### Examiners' Comments

(a) This question was answered correctly by most candidates. Some candidates scored poorly as they did not mention 'quality' and 'quantity' of work in their definition of efficiency of labour.

(b) Candidates failed to write about the rate of interest and the time period while explaining the different types of account. A few candidates failed to relate mobilizing of funds to different types of accounts.

### Suggestions for teachers

- Reiterate the importance of writing correct definitions.
- Stress upon important points to be included while answering questions.
- Explain the different ways and methods of answering questions

## MARKING SCHEME

### Question 7.

- a) Productive capacity of a worker is termed as 'Efficiency of labour'. In other words it refers to the quality and quantity of goods and services which can be produced during a given period.  
Factors affecting efficiency of labour are:
1. Hot and enervating climate
  2. Level of wages
  3. Level of technology
  4. Factory environment
  5. Migratory character
  6. Education and training facility
  7. Government Policy (or any other relevant matter)
- (Any three of the above mentioned factors should be explained)
- b) A Commercial Bank is a financial institution which borrow money from the public for the purpose of lending. These banks provides loans to various economic sectors. Three methods adopted by commercial banks to mobilise funds are the following:
1. Fixed deposits account
  2. Current account
  3. Savings account
  4. Recurring deposit account. (Any three of the above)

### Question 8

- (a) Define Privatisation. Discuss *two* arguments each in **favour** and **against** privatisation. [8]
- (b) Read the following extract and answer the questions that follow:

Economic Times, September 4<sup>th</sup>, 2012

Terming payment of taxes as a 'mark of civilisation', Finance Minister P. Chidambaram has assured that authorities will not "rashly" implement controversial retrospective tax rules while once again promising a non-adversarial tax regime for all taxpayers. It is the second time in less than a week that Chidambaram has given assurance of a stable and fair tax regime, after the tax department attracted criticism for ushering in what some have called a "raid raj" and for introducing a series of measures industry and investors have slammed as retrograde.

- (i) Define direct tax. Give *two* examples.
- (ii) State how a direct tax can foster social consciousness.
- (iii) What is meant by a progressive direct tax? How does its imposition bring about equity?
- (iv) State *two* demerits of direct tax. [7]

## Examiners' Comments

- (a) The concept of "Privatisation" was not clearly understood by many candidates. The arguments in favour and against were mixed up and hence showed no conceptual clarity.
- (b) (i) Examples of direct taxes were not correct. Though candidates cited income tax as an example correctly, the second example was incorrect in most cases.
- (ii) Candidates were confused between 'social consciousness' and 'social equity' and ended up writing incorrect answers.
- (iii) This question was answered correctly by majority of candidates.
- (iv) The explanation and the sub-headings did not match in some cases and few candidates failed to offer any explanation and hence scored poorly.

### Suggestions for teachers

- Allot students enough practice in writing long answers with proper explanations.
- While discussing taxation, give sufficient examples to reinforce the learning process.
- Allot sufficient time to explain concepts like 'Privatisation'.
- Scrutinise the Pupil Performance Analysis booklet for suggestions on how to tackle queries and its subsequent benefits to students concerned.

## **MARKING SCHEME**

### **Question 8.**

- a) Privatisation refers to transfer of majority of ownership of state-owned enterprises to the private sector. Or introduction of private ownership in PSU's.

Arguments in favour of privatisation:

1. Creation of competitive environment
2. Lower cost of production because of greater efficiency.
3. Reduction in wasteful expenditure
4. Greater flexibility
5. Greater investment
6. Higher levels of technology and capital inflow.

Arguments against privatisation:

1. Social welfare neglected
2. Growth of monopoly.
3. Greater flow of foreign capital
4. Greater incidence of poverty

(Any two of the arguments in favour and against should be clearly explained)

- b) (i) Direct tax refer to those taxes which paid by those on whom they are legally imposed by the Government. These are imposed on income or property.



Egs: income tax, wealth tax, corporation tax, etc.

(ii) Direct tax creates spirit of civic responsibility amongst tax payers. Tax payers show keen interest in seeing that tax revenue is properly used. This checks wastage of public money.

(iii) Progressive tax refers to a tax system in which the rate of tax increases as one's income rises. In this system tax liability is in proportion to one's income it increases as income rises and falls as income decreases. Since the burden of tax is more on the rich and tax revenue can be used to promote the wellbeing of the poor it brings about equality by reducing the gap between the rich and the poor.

(iv) Demerits of direct taxes:

1. unpopular
2. Inconvenience
3. Possibility of evasion
4. Uneconomical
5. Arbitrary
6. Narrow in scope

(any two of the above should be explained)

### Question 9

(a) Define price elasticity of demand. Explain how the following factors determine price elasticity of demand:

- (i) Existence of substitute goods.
- (ii) Nature of the commodity.
- (iii) Proportion of expenditure incurred in a Household Budget.

[7]

(b) State whether the following statements are *true* or *false*. Give reasons for each:

- (i) If prices are expected to fall in the future current demand rises.
- (ii) Slow growth rate in Indian agriculture has increased mobility of labour from rural to urban areas.
- (iii) In a developing country like India public expenditure should not be incurred on infrastructural development.
- (iv) An indirect tax can be made progressive by imposing higher tax rates on luxury goods.

[8]

### Examiners' Comments

- (a) The definition of price elasticity of demand was written correctly but candidates were thoroughly confused on concepts related to the factors affecting price elasticity of demand.
- (b) Though candidates wrote on the statements being 'true' or 'false' they were unable to justify their answers in a relevant manner.

### Suggestions for teachers

- Classroom discussions should involve students participating in important and demanding topics that would enable them to understand concepts in clarity and write correctly.
- Equip students by assigning adequate practice exercises in application based questions.

### **MARKING SCHEME**

#### **Question 9.**

- a) Price elasticity of demand refers to the responsiveness of demand to a given change in price or % change in demand due to % change in price.
1. Existence of substitutes – Goods which have substitutes are highly elastic when compared to those which do not have substitutes.
  2. Durable goods have higher levels of elasticity when compare to perishable goods.
  3. Goods on which a high % of one's budget is spent, demand would be highly elastic compared to those goods on which a small % of one's budget is spent.  
(students must explain the above mentioned with suitable examples)
- b) (i) False  
If the prices are expected to fall in future, then the current demand will contract and future demand rise.
- (ii) True  
Stagnancy in Indian agricultural productivity and its backwardness has driven a large number of people to the urban areas from the rural areas. This has created huge migration of rural people to the urban areas leading to great pressure on natural resources and destruction of ecosystem
- (iii) False  
Developing economics require infrastructural development to experience a well-balanced economic development.
- (iv) True  
Indirect taxes can be progressive by imposing higher rate of tax on goods of luxury. The burden of tax will now be more on the rich rather than the poor.

### Question 10

- (a) Under which type of a market are producers 'price takers'?

Explain *three* of its characteristics.

[7]

- (b) With the help of a diagram state whether supply of a good is directly or inversely related to its price. Explain any *four* determinants of supply.

[8]

#### Examiners' Comments

- (a) Candidates who correlated concepts of 'price-takers' with 'perfect competition' answered correctly. A few candidates related it with monopoly and subsequently wrote incorrect answers.
- (b) The diagram of demand curve was drawn instead of the supply curve which showed a lack of basic understanding. In some cases, the curve and the axis were not labelled. Several candidates explained the determinants of demand instead of supply.

#### Suggestions for teachers

- Teach market forms in a comparative manner stressing the features of each market to enable students understand market related topics with ease.
- Instruct students to read the questions carefully and answer accordingly.
- Impress students on the importance of neatly labelled and correct diagrams. Give them sufficient practice in drawing these diagrams.

### MARKING SCHEME

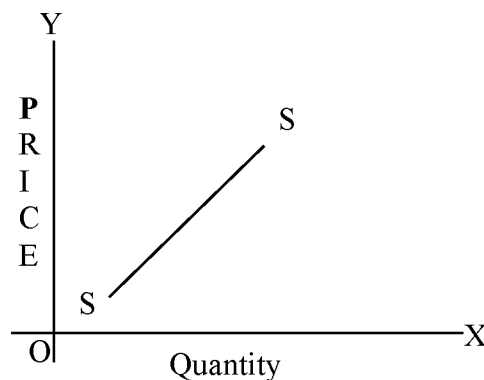
#### Question 10.

- a) Perfect Market

- (i) Large number producers and consumers.
- (ii) Homogeneous product.
- (iii) Perfect knowledge of the market
- (iv) Freedom of entry and exit.
- (v) Perfect mobility of factors of production
- (vi) Absence of selling cost and transportation cost.

(Any three)

- b)



Supply is directly proportional to price.

**Determinants of Supply:**

1. Price level
2. Technology
3. Price of factor production
4. Natural condition
5. Agreement among producers
6. Future price expectation
7. Number of producers
8. Taxes and subsidies
9. Economic and political condition

(Or any other determinant of supply)

(Any four must be explained)

**Topics/Concepts found difficult**

- Factors determining Elasticity of Demand.
- Privatization.
- Concept of overdraft facility.
- Functions of Central Bank.
- Credit Control Methods.
- Fiscal and Monetary Policy.

**Suggestions for students**

- Avoid selective study.
- Allocate sufficient time for Part II.
- Practise graphs diagrams and numericals.
- Solve sample question papers regularly to form an idea on the different ways in which questions are framed.
- Definitions and formulas should be thoroughly practised.

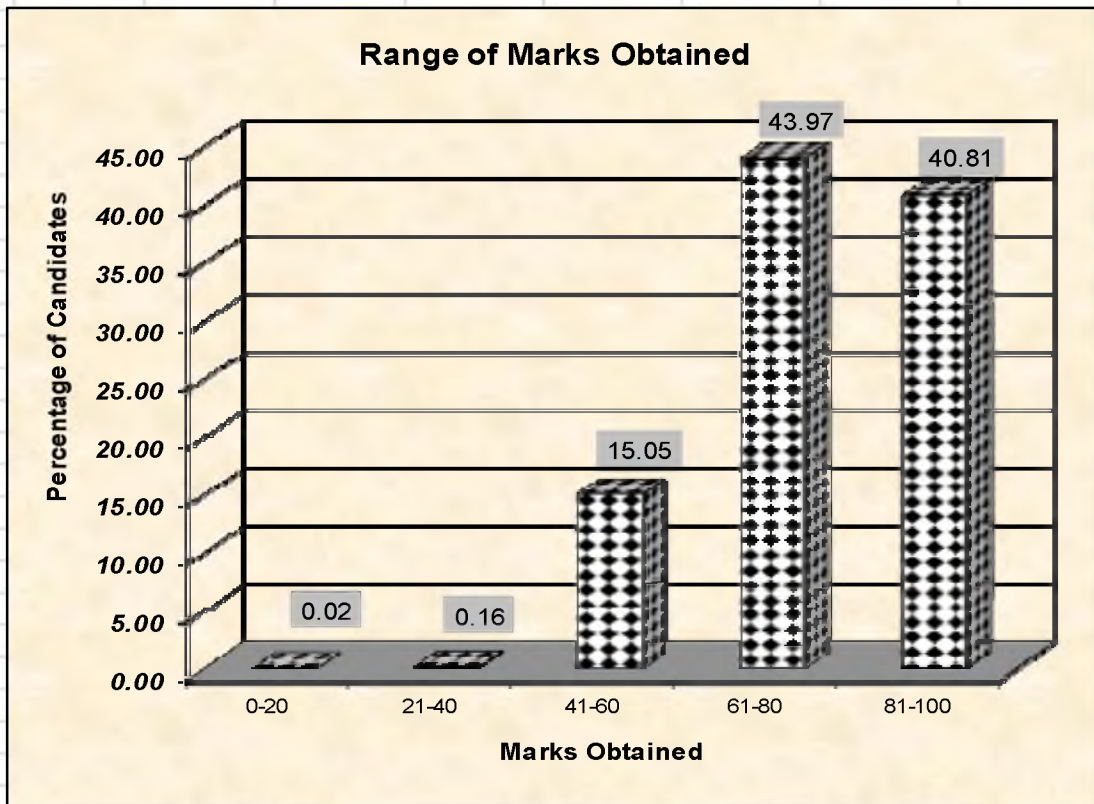
## COMMERCIAL APPLICATIONS

### STATISTICS AT A GLANCE

|                                                   |        |
|---------------------------------------------------|--------|
| Total Number of students who took the examination | 12,614 |
| Highest Marks Obtained                            | 100    |
| Lowest Marks Obtained                             | 13     |
| Mean Marks Obtained                               | 76.99  |

### Percentage of Candidates according to marks obtained

| Details                  | Mark Range |       |       |       |        |
|--------------------------|------------|-------|-------|-------|--------|
|                          | 0-20       | 21-40 | 41-60 | 61-80 | 81-100 |
| Number of Candidates     | 2          | 20    | 1898  | 5546  | 5148   |
| Percentage of Candidates | 0.02       | 0.16  | 15.05 | 43.97 | 40.81  |
| Cumulative Number        | 2          | 22    | 1920  | 7466  | 12614  |
| Cumulative Percentage    | 0.02       | 0.17  | 15.22 | 59.19 | 100.00 |



## COMMERCIAL APPLICATIONS

### ANALYSIS OF PERFORMANCE

#### Question 1

Give one difference between each of the following:

- (a) *Industrial goods* and *Consumer goods*. [2]  
 (b) *Fixed assets* and *Current assets*. [2]  
 (c) *Sales promotion* and *Publicity*. [2]  
 (d) *Fixed deposit* and *Recurring deposit*. [2]  
 (e) *Direct labour costs* and *Indirect labour costs*. [2]

#### Examiners' Comments

- (a) Most candidates answered Industrial goods as that of being produced by the industry instead of it being produced in the further production of other goods.  
 (b) Most candidates misinterpreted fixed assets with fixed deposits and current deposits.  
 (c) Most candidates misinterpreted sales promotion with advertising and wrote incorrect answers.  
 (d) Most candidates answered this question correctly.  
 (e) The concept of Direct *labour* cost and Indirect *labour* cost was not clearly understood by most candidates and this led to many writing on Direct costs and Indirect costs instead.

#### Suggestions for teachers

- Clearly differentiate between terms citing suitable examples.
- A detailed explanation of concepts must be done to facilitate a better understanding.
- Emphasise on key words while explaining sales promotion with examples.
- Students must be trained to write the main points of distinction.
- A proper explanation with appropriate examples will improve understanding of concepts.

### MARKING SCHEME

#### Question 1.

a) Industrial Selling and Consumer Selling

| Industrial Goods                                                                                 | Consumer Goods                                                           |
|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Selling to industries for production of consumer goods. E.g. raw materials, machinery, equipment | Selling of goods and services to the final users. E.g. soaps, toothpaste |

b) Fixed Assets and Current Assets

| Fixed Assets                                                                 | Current Assets                                                                    |
|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| These assets are acquired for a long period of time and not for resale. E.g. | These assets are acquired for resale or conversion into cash as soon as possible. |

|                                                                                                                                                                                       |                                                                                                                                                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Land and building, furniture and fixtures                                                                                                                                             | E.g. Cash in hand, debtors, stock in hand                                                                                                                                                                                 |
| c) Sales Promotion and Publicity                                                                                                                                                      |                                                                                                                                                                                                                           |
| <b>Sales Promotion</b>                                                                                                                                                                | <b>Publicity</b>                                                                                                                                                                                                          |
| It is short-term incentives of non-recurring nature, used to stimulate consumer purchasing and dealer effectiveness.                                                                  | It is any commercially significant news which has no sponsor, is non-personal and is not paid for by the individual or organization involved in it.                                                                       |
| d) Fixed deposit and Recurring deposit                                                                                                                                                |                                                                                                                                                                                                                           |
| <b>Fixed deposit</b>                                                                                                                                                                  | <b>Recurring deposit</b>                                                                                                                                                                                                  |
| A fixed amount of money is deposited for a fixed period of time. E. g. Rs,10,000 for 5 years.                                                                                         | A fixed amount of money is deposited at regular intervals e.g. monthly for a fixed period of time. For e.g. Rs.1000 every month for 5 years.                                                                              |
| e) Direct labour cost and Indirect labour cost                                                                                                                                        |                                                                                                                                                                                                                           |
| <b>Direct labour cost</b>                                                                                                                                                             | <b>Indirect labour cost</b>                                                                                                                                                                                               |
| The labour which can be wholly and directly identified with a particular product is called direct labour cost. E.g. wages paid to the carpenter in a furniture manufacturing factory. | The labour which cannot be wholly and directly identified with a particular product. It is the labour employed for performing tasks incidental to manufacture. E.g. wages paid to store keeper, time keeper in a factory. |

## Question 2

- (a) What is *Food Adulteration*? Give an example. [2]
- (b) Mention the elements of Public Relations. [2]
- (c) Why should an *Income and Expenditure Account* be prepared? [2]
- (d) Give *two* basic differences between *Informative advertising* and *Persuasive advertising*. [2]
- (e) What are '*contingent liabilities*'? [2]

### Examiners' Comments

- (a) Most candidates answered this question correctly. However, a few candidates misinterpreted food adulteration with food consumed by adults.
- (b) Most candidates answered this question correctly.
- (c) Most candidates answered this question correctly. However, a few candidates wrote profit or loss instead of surplus or deficit.
- (d) Most candidates answered this question correctly.
- (e) Most candidates were unable to answer it correctly. Very vague answers were written that were irrelevant.

### Suggestions for teachers

- To avoid confusion explain concepts with the help of examples.
- Teach students to be specific while writing answers.
- Emphasise on key words while explaining.
- A clear explanation of the concept must be done to facilitate a better understanding.
- A broader understanding of contingent liabilities with examples will bring clarity to concepts.

## MARKING SCHEME

### Question 2

a) Food Adulteration:

It means deliberate mixing of low quality, undesirable, inedible and even toxic materials in food items. E.g. mixing grit with cereals, papaya seeds with pepper seeds, vanaspati with ghee, etc.

b) The elements of PR: human relations, empathy, persuasion and dialogue.

c) Uses of an *Income and Expenditure Account*

- Income and Expenditure Account shows the surplus or deficit arising from the activities of a non-trading concern during a year.
- It shows all items of income and expenditure. With the help of this information, the organisation can take steps to increase income or reduce expenditure.
- It serves as the basis for preparing the Balance Sheet of a non-trading organisation.
- It fulfils the statutory requirements.

d) Informative Advertising and Persuasive Advertisement.

| <b>Informative Advertising</b>                                                                                                                                                                                                                                               | <b>Persuasive Advertisement</b>                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| This type of advertising contains information about a product/service or institution. It makes consumers aware of the existence, features, uses of goods and services. For e.g. advertisements suggesting how to save petrol or avoid accidents are informative advertising. | This type of advertising is designed to persuade the consumers to buy a product or service or to support an idea. |

e) **Contingent liabilities:**

They become payable on the happening of particular events. If the events do not occur, these are not payable. E.g. guarantee given by the firm on behalf of the borrower from a bank will become payable only if the borrower makes default in payment.

### Question 3

- (a) On the basis of ownership, distinguish between a *Product* and a *Service*. [2]
- (b) Explain in brief the term 'Parity Pricing'. [2]
- (c) How does the Central Bank control credit through *Statutory Liquidity Ratio*? [2]
- (d) Explain the terms *Surplus* and *Deficit* in an *Income and Expenditure Account*. [2]
- (e) With reference to the *Bhopal Gas Tragedy*:
- (i) Name the company responsible for the tragedy.
- (ii) Identify the poisonous gas that caused this ghastly man made disaster. [2]



### Examiners' Comments

- (a) Most candidates wrote differences that did not relate to the basis of ownership.
- (b) Most candidates answered this question correctly. However, a few explained penetrating pricing instead of parity pricing.
- (c) Most candidates confused the term statutory liquidity ratio with that of cash reserve ratio.
- (d) Most candidates answered this question correctly.
- (e) Most candidates were unable to answer this question correctly.

### Suggestions for teachers

- Advise students to be careful and specific while writing answers.
- Revision of closely related concepts will enhance better understanding of topics.
- Revision by way of assignments should be undertaken to facilitate a better understanding and comprehension of concerned topics.
- Teach students to be specific while writing answers.
- Quote suitable examples for students to understand the impact of man-made disasters.

## **MARKING SCHEME**

### **Question 3.**

- a) On the basis of ownership: when a person buys a product, he becomes the owner.  
E.g. if you buy a car, the ownership is transferred to you.  
But when you buy a service, you do not become its owner.  
E.g. if you hire a taxi, you do not become its owner.
- b) **Parity pricing:** It is the pricing strategy adopted when a business firm adjusts its own price policy in accordance with the general pricing structure in the industry. It is suitable under the following conditions:
  - (i) When it is difficult to measure the cost.
  - (ii) When competitive products are homogenous, i.e. similar in nature.
- c) **Statutory Liquidity Ratio:** Commercial banks are required to keep a certain percentage of their assets in liquid form, i.e. cash and government securities. To reduce credit, central bank raises the statutory liquidity ratio and vice versa.
- d) The closing balance of the Income and Expenditure Account shows **surplus** (revenue exceeds expenditure) or **deficit** (expenditure exceeds revenue) for the year. OR  
If the credit side exceeds the debit side, there is surplus. If the debit side exceeds the credit side, there is deficit.
- e) With reference to the *Bhopal Gas Tragedy*,
  - i. The company responsible for the tragedy: Union Carbide India Ltd.
  - ii. The poisonous gas that was accidentally released: methyl isocyanate (MIC)

#### Question 4

Justify either *for* or *against* by giving *two* reasons for each of the following:

- (a) *Aggressive selling* is the only way a company can survive in a highly competitive market. [2]
- (b) Real costs must be recorded in the books of accounts. [2]
- (c) Training reduces employee turnover. [2]
- (d) Tea and coffee can be sold on *sale on approval or return* basis. [2]
- (e) Increased advertising in recent times has resulted in lower prices of newspapers. [2]

#### Examiners' Comments

- (a) Most candidates did not write for or against. Candidates were unable to understand the term aggressive selling.
- (b) Most candidates were unable to justify the concept.
- (c) Most candidates lacked understanding of the term 'employee turnover'.
- (d) Most candidates were confused about sale on approval or return and sale by sample hence reasons stated lacked conviction.
- (e) Most candidates were unable to answer this question correctly and hence were unable to justify the concept.

#### Suggestions for teachers

- Practical examples will ensure a thorough understanding of the concept.
- A proper explanation with appropriate examples must be given.
- A proper explanation with appropriate examples must be given so that students are clear in their concepts.
- For a clear understanding provide examples to bring clarity to concepts.
- Explain by providing examples of how school magazine funds are raised for publishing through advertisements.

#### **MARKING SCHEME**

#### **Question 4.**

Justify either *for* or *against* by giving two reasons for each:

- a) **Incorrect:**  
Aggressive selling leads to unscrupulous practices. In the long run the company will not survive. Customer satisfaction is the only way to survive competition.
- b) **Incorrect:**  
Real costs are the sacrifice, discomfort and pain involved supplying the factors of production by their owners. They cannot be measured in terms of money and hence are not recorded in the books of accounts. This is according to the Money Measurement Concept.
- c) **Correct:**  
Trained employees are satisfied and interested in their work.  
Trained personnel produce better quality and quantity of work.  
Training improves the self-confidence and job-satisfaction of the employees.

Trained employees operate the machines and equipment more carefully and cause fewer accidents and make fewer mistakes so management will be happy with them.

d) **Incorrect:**

‘**Sale by Sample**’ is used to sell tea and coffee.

A sample of the product is checked. Bulk order is placed on the basis of sample.

e) **Incorrect:**

Advertising serves as a great source of revenue for newspapers and magazine.

### Question 5

- (a) What are Overheads or Indirect expenses? Mention *three* types of Overheads with an example of each. [5]
- (b) ‘Intense competition in the corporate world has led to the emergence of advertising as a vital tool for corporate survival’. Do you agree with this statement? Support your answer by citing reasons. [5]
- (c) Explain the following:
- Principle of Prudence.
  - Money Measurement Concept. [5]

### Examiners’ Comments

- (a) Most candidates were unable to write an indepth understanding of the concepts. Some candidates wrote the meaning without citing examples.
- (b) Most candidates failed to understand the question and wrote the disadvantages of advertising instead of its advantages.
- (c) Most candidates answered the question correctly barring a few candidates who were unable to understand the topic concerned.

### Suggestions for teachers

- A proper explanation with appropriate examples must be given.
- Advise students to read questions carefully before answering.
- Well planned assignments and a thorough revision would instil a sense of confidence among students to prepare them for all forms of questions posed.

### MARKING SCHEME

#### Question 5.

a) **Overheads or Indirect expenses:**

Overheads or indirect expenses are the expenses which are not directly **attributable to a specific job or cost centre.**

The three types of overheads are:

1) Factory or manufacturing overheads:

E.g. grease, oil, consumable stores, salary of a storekeeper, power and fuel etc.

2) Office and Administrative overheads:

E.g. printing and stationery, salary of office manager, office rent

- 3) Selling and distribution overheads:  
E.g. price list, sales commission, advertising etc.

b) **Importance of Advertising:** [Any five]

- Creates demand for new products.
- It helps to increase sales and profits by attracting people to buy and expanding markets.
- It creates goodwill by making the manufacturers and his products famous.
- It helps to maintain steady demand.
- It helps to establish direct link between manufacturers and consumers.
- Advertising is helpful in meeting competition.

c) Explain the following:

i. **Principle of Prudence:**

According to this principle, record all anticipated losses but ignore all anticipated gains. Prudence is the policy of playing safe.

e.g., Closing stock is valued at cost price or market price, whichever is less.

ii. **Money Measurement Concept:**

On the basis of this concept, only those transactions are recorded in accounts which can be expressed in terms of money, e.g., the retirement of the chairman of the company cannot be recorded because it is not possible to measure the monetary effect of retirement.

### Question 6

- (a) What is the Penetrating Pricing Policy? Discuss its pros and cons. [5]
- (b) Elucidate the selection procedure for a vacancy in an organization. [5]
- (c) Briefly explain any *five* Consumer Rights. [5]

#### Examiners' Comments

- (a) Most candidates were confused about the term Penetrating pricing policy with Parity pricing policy, with some being unable to associate terms related to pros and cons.
- (b) Most candidates answered this question correctly.
- (c) Most candidates wrote the fundamental rights instead of consumer rights.

#### Suggestions for teachers

- To avoid confusion explain the concepts of pricing with examples using various terms during assignments. This will make students familiar with terms of pros and cons involved.
- Well planned assignments and a thorough revision of fundamental and basic concepts will lead to a higher sense of understanding amongst students.
- To avoid confusion explain concepts with examples.

## MARKING SCHEME

### Question 6.

a) **Penetrating Pricing Policy:** This strategy involves setting a low price in the initial stage so as to make the brand quickly popular and to maximize the market share. The manufacturer seeks to **sell to the masses**. Penetrating pricing is an aggressive price strategy. It is ideal to use this strategy while launching FMCGs.

**Advantages:**

- The policy results in high sales volume during the initial stages.
- It makes the brand quickly popular
- Economies of large scale production available.
- It helps to meet potential competition in the market.
- It is useful to restrict the entry of new firms in the industry.

**Disadvantages:**

- Very low price may bring in demand which the firm is unable to meet.
- Some consumers may think that the low priced produce it of poor quality.
- In case costs are underestimated, it may be difficult to raise price later on.
- Creates a price war.

b) **Procedure for Selection:**

[Any five]

- 1) **Preliminary Interview:** The job-seekers are received by the secretary who carries out a preliminary interview to determine whether the candidates are qualified to apply for the job.
- 2) **Application Form:** The candidates are asked to fill the prescribed application form, with information like name, address, age, qualification, work experience, etc.
- 3) **Employment Tests:** These tests are based on the assumption the work behaviour of a person can be predicted by sampling it.
- 4) **Selection Interviews:** Interviews can be used to check the information obtained through application form and tests. Managers can judge the personality, communication skills and suitability of the candidate through face-to-face contact. Candidates can also get information about the job and the company.
- 5) **Checking References:** Candidates are requested to give 2 or 3 names of persons from whom information about the candidate may be obtained. These references are contacted and asked to provide information about the character and competence of the candidate.
- 6) **Medical Examination:** A physical examination of the employees is essential to ensure that they are physically fit for the job.
- 7) **Final Approval:** The short-listed candidates are finally approved by the heads of the departments in which they are to work. They are issued appointment letters.

c) **Consumer Rights:**

(Explain any three)

- 1) Right to be informed
- 2) Right to Safety
- 3) Right to Choose
- 4) Right to be Heard
- 5) Right to seek Redressal
- 6) Right to Consumer Education

## Question 7

- (a) Describe the procedure adopted for opening a Savings Bank Account with a Commercial Bank. [5]
- (b) Briefly explain any *five* factors responsible for the destruction of the eco system. [5]
- (c) List the advantages and disadvantages of using radio services as a form of advertising media. [5]

### Examiners' Comments

- (a) The question was correctly answered by most candidates.
- (b) Most candidates answered this question correctly.
- (c) Most candidates answered this question correctly. However, a few wrote irrelevant advantages and disadvantages.

### Suggestions for teachers

- Explain clearly and in detail the main points.
- An indepth study of the text must be encouraged.
- A broader understanding of radio advertising will bring clarity.

## MARKING SCHEME

### Question 7.

- a) **Procedure for opening a Savings Account in the bank:**
- 1) **Application in the prescribed form:**  
Person or organization must fill up the relevant application form with details like his name, occupation, address and specimen signature.
  - 2) **Introduction of the Applicant:**  
The applicant must be introduced by an existing account holder of the bank or a reputed businessman. The person introducing the applicant signs on the form with his full address filled in. The bank also consults the references about the financial standing of the applicant, to reduce fraud.
  - 3) **Specimen Signatures:**  
The applicant must give 2 specimen signatures on a prescribed card, which is filed for reference, and can be used for verifying signatures on cheques.
  - 4) **Photographs:**  
To avoid frauds, photographs of applicant are affixed on signature cards.
  - 5) **Initial Deposit:**  
The applicant must deposit the initial amount to open his account, depending on the type of account to be opened. The bank then provides pass book, cheque book and pay-in-slip book to the account holder.
- b) **Factors responsible for destruction of the eco system.**
- Population growth
  - Industrialization
  - Dwelling of business effect
  - Transport
  - Tourism

- Mining
- Agriculture

(Any two points)

c) **Radio Advertising:**

(Any five points)

**Advantages:**

- 1) Wide appeal
- 2) Illiterates can be approached
- 3) People can listen to the radio while in transit or at work
- 4) Selectivity is possible according to the different programmes
- 5) Can be repeated to create impact
- 6) Permits dramatic impact of voice, tone and music

**Disadvantages:**

- 1) Costlier than press media
- 2) Short life and hence can be missed by the listeners
- 3) Lacks visual impact
- 4) Distortion of message due to defective tuning

**Question 8**

(a) What is the professional and social significance of Human Resource Management? [5]

(b) Write short notes on:

(i) Importance of Packaging

(ii) The Chernobyl disaster.

[5]

(c) Last year, Sakona Co. Ltd. came up with a unique and revolutionary *Home Theatre System* with amazing new features, excellent sound quality and elegant design. It was priced very high, yet it was a great success. This year, the company is facing stiff competition, but is determined to acquire a huge chunk of the market share.

(i) In what stage of PLC (Product Life Cycle) is the Home Theatre System presently?

(ii) Suggest strategies that Sakona Co. Ltd. should adopt to achieve its corporate goals.

[5]

Examiners' Comments

(a) Most candidates were unable to write an indepth understanding of the concept. Some candidates were confused with professional and social significance of Human Resource Management.

(b) Most candidates answered importance of packaging correctly. Chernobyl disaster was not answered by most candidates..

(c) Most candidates failed to comprehend the case study correctly. Very vague references to growth stage

Suggestions for teachers

- Explain the concepts and the basis clearly with proper examples.
- An indepth study of the text must be encouraged.
- To avoid confusion, explain the concepts of stages and strategies with examples.

strategies were written that were irrelevant.

## MARKING SCHEME

### Question 8.

- a) **Professional Significance of HRM:** (Any five points)
- Improving the quality of work life.
  - Providing maximum opportunities for personal development of each employee.
  - Maintaining healthy relationship between the various people in an organization.
  - Allocating work properly.
- Social Significance:**
- It provides suitable employment that provides social and psychological satisfaction to people.
  - Eliminating wastage of human resources by conserving the mental and physical health.
  - Maintaining a balance between jobs available and the job-seekers in terms of numbers, qualifications, needs and aptitudes.
- b) Write short notes on:
- i **Importance of Packaging:** (Any three)
- Protects product from damage and deterioration during transportation and storage.
  - It facilitates branding of product
  - Helps to increase sales and obtain high prices.
  - Acts as silent salesman
  - It must be designed carefully as it has competitive value
- ii **Chernobyl disaster:**
- The Chernobyl disaster occurred on April 26, 1986 at the Chernobyl nuclear plant located in Chernobyl city of Ukraine. It is considered to be the worst accident in the history of nuclear power generation. A plume of radioactive fallout drifted over the surrounding area. Large areas of Ukraine, Belrus and Russia were badly contaminated. It caused at least 80 percent of direct deaths. More than 9000 people died from some form of cancer. About 6.6 million people were exposed to radiation.
- c) **Growth Stage**
- Strategies to achieve its goals:
- Heavy advertising to create brand image and to stimulate sales.
  - Expanding distribution channels.
  - Introducing new versions of the product.
  - Keeping the price at competitive levels.
  - Greater emphasis on customer service.

### Question 9

#### Case Study

It is the conviction of the management of Carmel Closure Co. Ltd. that its shareholders constitute an important part of the public. The management feels that the company should devote time and effort in studying the make-up, location, economic status and demography of this group to enable better communication and a stronger public relation policy.



Mr. Ramesh Sharma is the Public Relation Officer of the company. He agrees with the Management to a certain extent, however he would like to introduce other forms of public relations programmes.

- (a) Why is it imperative for a company to maintain a good relationship with its shareholders?  
How should Mr. Sharma go about planning a successful programme? [5]
- (b) Mention *two* other public relations programmes that would be of paramount importance to the company. Give reasons to support your answer. [5]
- (c) How would you explain to Mr. Sharma about the element 'Empathy' as being one of the key elements to establish good public relations? [5]

### **Examiners' Comments**

- (a) Most of the candidates failed to answer this question correctly. Some candidates wrote the importance of public relations. Many candidates did not write the second part of the question.
- (b) Most candidates were unable to mention public relation programmes and hence were unable to justify the concept.
- (c) Most candidates answered this question correctly except for a few who wrote vague answers.

### **Suggestions for teachers**

- Regular practice of case studies is essential. Students should be able to correlate case studies with the topics learnt and should be taught to develop a logical and analytical outlook.
- Apart from textbook, additional examples must be revised in class.
- An indepth study of the text must be encouraged.

## **MARKING SCHEME**

### **Question 9**

- a) It is imperative to maintain good relations with the shareholders as:
- Many shareholders suspect corporate management.
  - The individual investors are unable to understand complex financial data.
  - Financial institutions and stock analysts require detailed information.
  - It would help to arouse their interest in the company,
  - It would promote holding of stock as a long-term investment,
  - It would help reduce shareholder criticism and organized opposition to management.
- Mr. Sharma can plan to keep them informed through reports, organizing shareholders' meetings, films and lectures.
- b) **Public Relations Programmes:** (Any two)
- 1) **Consumer Relations:**
    - Consumers determine the success or failure of an organization.
    - Consumers are increasingly demanding their rights.
  - 2) **Distributor Relations:**
    - The distributors and retailers keep the production-line moving.
    - The PR department must maintain close contacts with them and ensure profitable business to them.
    - Mutual understanding and cooperation is beneficial to both.

3) **Supplier Relations:**

- For producers, suppliers are the primary source of raw materials, components and tools. There is a competition for the products and services of reliable suppliers who supply quality material on time and regularly.
- To enter into a long-term supplier-vendor relationship, the PRO need to communicate with the suppliers

4) **Government Relations:**

- Businesses are taking an increasingly active part in govt. affairs.
- Govt. is also increasingly consulting businessmen in formulating policies and programmes for economic and social development of people.

5) **Community Relations:**

- Business firms and the local community are mutually dependant.
- Business serves the community by providing regular employment, wages, financial benefits, local taxes, etc.
- The local community supplies labour, capital and demand to the business.
- A business must accept its responsibility to the community.

6) **Employee Relation:**

- With widening of industries, there are serious problems in communication and relations with employees. Poor communications may create misunderstanding.
- A two-way channel of communication between workers and management is required for the smooth functioning of the company.

7) **Media Relations:**

- Good working relationship with editors, reporters, columnists and broadcasters is essential getting good publicity coverage.
- Media relations have become complex as the number of media has increased and so has competition for time and space.
- Professional approach to publicity has improved relations of business firms with the media.

c) **'Empathy' as Element of Public Relations:**

Empathy: Involves seeing and feeling matters as others see and feel.

(with proper explanation)

## Question 10

### Case Study

Arden Aptec Ltd. is a telecommunication company. It gives top priority to employee training. The company believes that training contributes to a permanent relationship between superiors and subordinates. The company environment provides conditions favourable to learning and career growth. It also considers it as a continuous process.

The recruitment policy of the company is focused on campus recruitment and hence special steps are taken to ensure that the employees acquire the necessary skills. The accelerated rate of technological changes in the telecommunication industry has led to greater focus on retraining employees.

In addition to in-house training facilities, the company makes use of training programmes run by various technical and management institutes.

- (a) Discuss any *three* types of training that can be undertaken by Ardent Aptec Ltd. [5]
- (b) Why does Ardent Aptec Ltd. think it is important to train employees? [5]
- (c) Discuss any *three* training methods that may be adopted by Ardent Aptec Ltd. [5]

Examiners' Comments

- (a) Most candidates got confused and wrote methods of training instead of types.
- (b) Most candidates answered correctly.
- (c) Most candidates got confused and wrote types of training instead of methods of training.

Suggestions for teachers

- Advise students to read questions carefully before writing answers. Explain the various concepts and related topics with clarity so that students are clear in their concepts.
- Regular practice and correlation with topics already taught must be undertaken.
- Case studies have application based questions and students must be trained to correlate it to the topics learnt.

**MARKING SCHEME**

**Question 10.**

- a) Types of training undertaken by Ardent Aptec Ltd.:
- 1) **Orientation Training / Induction:**  
It is the training given to new employees to familiarize them to the policies rules and regulations of the company. It is a process of **socialization**. The new employees get acquainted with their superiors, subordinates and colleagues. The orientation programme enables the new employees to adjust quickly to the new surroundings and the people.
  - 2) **Job Training:**  
This is given to make the employees proficient in performing job operations. They become efficient in handling machines and equipment. This training is particularly essential for employees with no work experience.
  - 3) **Refresher Training:**  
It teaches the employees the latest developments in work methods and procedures. Short-term refresher courses are organized to introduce technological advancements and new tools and equipments. Refresher training helps to avoid

employee obsolescence and to refresh the memory of the employees.

4) **Safety Training:**

This training creates safety consciousness among the employees, familiarizes them with the use of safety devices and thus minimizes accidents at work place.

5) **Promotional Training:**

It is given to employees who are given a promotion. Promotion increases the responsibilities of the employee and it is necessary to train him for the new job.

b) **Need for Training:**

1) **Increased Productivity:** Trained personnel produce better quality and quantity of work. It improves labour efficiency.

2) **Better Utilization of Resources:** Through training, employees learn to make better use of materials and machinery. Therefore there is less wastage of resources and the cost of production is also reduced.

3) **Better safety:** Trained employees operate the machines and equipment more carefully and cause fewer accidents.

4) **Less Supervision:** Well-trained employees are more disciplined, self-dependent and responsible. This reduces need and cost of supervision.

5) **Higher Morale:** Training improves the self-confidence and job-satisfaction of the employees. They take greater interest in their work and feel a sense of security. This will prove beneficial for the company.

6) **Reduced Labour Turnover and Absenteeism:** As trained employees are satisfied and interested in their work, there will be less absenteeism and labour turnover.

7) **Expansion and growth:** With the help of a trained staff the company will be able to expand and grow more easily and rapidly. Technological advancements can be easily incorporated.

c) **Training methods used by ABC Telecom Ltd.**

1) **On-the-Job Training (OJT):**

In this method the employees learn by performing the job in actual work situation. Therefore, it is also called '**learning by doing**'. The employee learns the job operation under the

supervision of the supervisor or a senior employee. It is step-by-step learning and the employee contributes towards production in the course of learning.

- **Coaching or Mentoring:** the supervisor instructs and guides the trainee. The new employee learns the ins and outs of the job under his guidance. This improves relationship between the worker and his supervisor.
- **Under Study:** the trainee is imparted training by a senior and experienced employee. The trainee learns by observation and imitation. The purpose is to prepare the trainee to fill the vacancy arising from retirement or promotion of the trainer.
- **Assistant to:** the trainee is placed as an assistant to a senior executive of the firm. Initially, the senior entrusts him routine work and guides him to perform the job. Later on, more important and responsible assignments are given to the trainee. Ultimately the trainee becomes competent to perform the job of the senior executive.

## 2) **Off-the-Job Training:**

In this method, the employee learns outside the work place through lectures, workshops, etc.

- **Vestibule Training:**  
In this method, a training center called vestibule is set up and the actual job conditions are duplicated or simulated in it. Expert trainers are employed to provide training with equipments and machines, which are identical to those used at the actual work place.
- **Lectures, Seminars and Conferences:**  
Managers learn new ideas and latest developments by attending lectures, seminars and conferences. Sometimes, executives attend courses and classes in management institutes and universities to refresh their knowledge and learn new ideas.

### **Topics found confusing/difficult**

- Direct labour costs and Indirect labour costs.
- Aggressive selling.
- Overhead or indirect expenses.
- Principle of prudence.
- Social significance of Human Resource Management.
- Strategies that Sakona Ltd. should adopt to achieve corporate goals.
- Good relationship with its shareholders.
- Planning successful programme.
- Public relation programmes.
- Training methods and types
- Questions relating to costs.
- Pros and cons of Penetrating pricing policy
- Public relations and costs.

### **Suggestions for students:**

- Write relevant reasons on questions based on For or Against statements.
- Be careful and specific while writing answers.
- Main points must be highlighted.
- Write differences/ distinction in a tabular form.
- Read the question carefully.
- Be clear with the concepts by making notes and using the right terminology.
- Question numbers and sub-questions should be indicated clearly.
- Read case studies carefully and correlate with topics learnt.
- Develop a logical and analytical mind for case studies through regular practice.
- Understand key terms.
- Understand topics of Marketing, Advertising, Banking and Issues of the environment by correlating them to projects based on practical situations.
- Learn concepts with the help of examples.
- Solve case studies.
- Topics on Environmental related issues to be given equal importance.
- Effective Time management is a key to success.