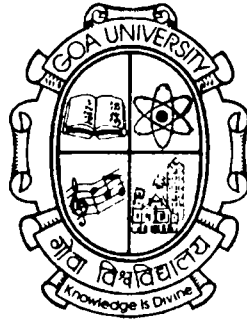




# GOA UNIVERSITY

**HAND - BOOK 1990 - 91**

Taleigao Plateau  
P. O. Santa Cruz  
GOA - 403 005



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**HAND - BOOK 1990 - 91**

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## PREFACE

The Goa University is happy to present this Handbook for 1990-91 for the use of students and the general public. It contains all relevant information required for seeking admission to different Courses in the University as well as in the various affiliated Colleges and recognised institutions. It is divided into 3 parts. Part I gives information regarding Courses offered by University Teaching Departments, admission policy, scheme of examination, improvement of Class/performance and general information regarding Ph.D. and M. Phil. degree courses. Part II gives information about the courses offered by non-professional Colleges affiliated to and institutions recognised by Goa University, the admission rules regarding eligibility and scheme of examinations. Part III gives the same information as in Part II in respect of professional Colleges affiliated to Goa University.

The University has provision for instruction in almost all important faculties such as Arts, Humanities and Social Sciences, Commerce, Law, Education, Engineering, Medicine, Dentistry, Architecture and Fine Arts, both at the Post-graduate and graduate level. Besides the courses in above faculties, the University has facilities for Post-graduate programmes of Education and training leading to the degree of Masters in Management Studies, M.Sc. in Marine Bio-technology and Masters in Computer Applications. Discussions are also in advanced stage to start M.Sc. in Botany & Zoology from this academic year. The University has also started M.Phil. programme to begin with in English, Hindi, Mathematics and Physics from the academic year 1988-89. In addition it has also started Music as an elective subject at the B. A. level in the different Colleges from the academic year 1988-89. Efforts are also being made to introduce Management as an elective subject at the under - graduate and Post - graduate curriculum. It is hoped that this Handbook will be of considerable assistance and guidance to the students and the general public. Any suggestions for improvement of its contents and presentation are most welcome.

University Office  
Taleigao, Goa  
8th May, 1990.

Dr. B. Sheik Ali  
VICE-CHANCELLOR

NIEPA DC



D05330

**Sub. National Systems Unit,**  
**National Institute of Educational**  
**Planning and Administration**  
**17-B, Ashoka Marg, New Delhi-110016**  
**DOC. NO. D-5330.....**  
**Date..... 9-7-90.....**

## **PART I**

### **POST-GRADUATE STUDIES IN UNIVERSITY DEPARTMENTS**

- 1) Courses Offered
- 2) University Departments
- 3) Admission and Eligibility Rules and Reservation of Seats
- 4) Scheme of Examinations
- 5) Improvement of Class/Performance
- 6) General Information for M. Phil Degree Courses
- 7) General Information for Ph.D. Degree Courses.

## **POST-GRADUATE COURSES OFFERED IN THE UNIVERSITY TEACHING DEPARTMENTS**

The following are the courses of study in which enrolment is made in the different Faculties of the University:-

### **I. Faculty of Arts, Humanities and Social Sciences :**

1. Ph.D. : English, Hindi, Konkani, Marathi, French, Portuguese, Economics, History, Philosophy Political science and Sociology.
2. M.Phil. : English and Hindi
3. M.A. : English, Hindi, Konkani, Marathi, French Portuguese, Economics, History, Philosophy, Political Science Sociology and Latin American Studies.

### **II Faculty of Pure Sciences :**

1. Ph D. : Chemistry, Geology, Mathematics, Microbiology, Physics.
2. M.Phil : Mathematics, Physics
3. M. Sc. : Chemistry : (In-Organic Chemistry, Organic Chemistry, Physical Chemistry)
- : Geology Mathematics Microbiology, Physics, Botany & Zoology

### **III. Faculty of Applied Sciences .**

1. Ph.D. : Marine Science
2. M.Sc : Marine Biotechnology, Marine Science
3. M.C.A : Computer Science

### **IV. Faculty of Commerce and Management Studies :**

1. Ph D. : Commerce, Management
2. M Com : Commerce
3. M.MS : Management Studies

**Note :** All the Courses of Study leading to the Masters degree in Arts and Science (excluding French, Portuguese and Computer Science are restructured from the Academic years 1989-90. Ordinances issued by this University in this connection are reproduced vide Annexure I The students may please note that elective subjects under different Courses of Study will be offered depending on the availability of faculty and other relevant infrastructure facilities.

## UNIVERSITY DEPARTMENTS

### 1. Faculty of Arts, Humanities and Social Sciences :

#### I. 1. Department of English :

##### TEACHING FACULTY

- (1) B. V. Nemade, M. A. (English), M. A. (Linguistics), Ph.D.  
Professor and Head,  
(Linguistics, Criticism, English Literature)
- (2) S. S. Kulkarni, M. A., Ph.D.  
Reader  
(British and American Literature, Indian writing in English,  
Commonwealth Literature, Canadian Literature)
- (3) A. K. Joshi, M. A., Ph.D.  
Reader  
(British & American Literature, Aesthetics, Literary Criticism)
- (4) (Mrs.) Anita Vashishtha, M. A., M. Phil.  
Lecturer
- (5) K. Sripad Bhat, M. A.  
Lecturer.

#### M. A. – ENGLISH CORE COURSES

EN C1/Sub. 1 : Linguistics : Introduction to Study of language  
OR

World's Classics : Independent Reading.

EN C2 : English Poetry (Chaucer to 1980)

EN C3 : English Novel (18th Century to 1980)

EN C4 : English Drama (16th Century to 1980)

EN C5/Sub. 3 : Major Form (Novel/Tragedy/Comedy/Epic)

EN C6 : Literary Criticism

EN C7 : Shakespeare

EN C8 : American Literature

OR

Structure of English

## ELECTIVE COURSES

ENE1/Sub : 2 : Stylistics

OR

Comparative Literature

EN E2 : Study of one of the major Poets

EN E3 : Study of one of the major Prose "Writers/Novelists"

EN E4 : Study of one of the major Dramatists

EN E5/Sub 4 : Translation : Theory and practice

OR

Indian Literature in English Translation

EN E6 : Readings in Literary Theory and Criticism OR Aesthetics

EN E7 : Creative Writing OR Commonwealth Literature

EN E8 : Latin American Literature OR English Language Teaching

### 1.2 Department of Hindi

#### TEACHING FACULTY

- (1) A. K. Pandey, M. A. Ph.D., D.Lit.  
Professor and Head  
(Literary Criticism)
- (2) B. R. Mishra, M. A., Ph. D.  
Reader  
(Specialization in Poetics)
- (3) B. K. Sharma, M. A., Ph.D.  
Reader  
(Specialization in Modern Poetry)
- (4) (Mrs.) Ishrat Bi Khan, M. A., Ph.D.  
Lecturer
- (5) S. D. Tripathi, M. A., Ph.D.  
Lecturer

#### M. A. HINDI CORE COURSES

- HI C1 : Introduction to Linguistics
- HI C2 : Niragum Poetry and Social Protest & Sagun poetry  
and its Social Context.
- HI C3 : Growth of Safism in Northern India and  
Riti Poetry and Court Culture.
- HI C4 : Classical poetry, Practical Criticism
- HI C5 : Literature and Society since Independence and  
theory and practice of Translation/Mass Media.
- HI C6 : Modern Poetry
- HI C7 : Literary Critics and Criticism
- HI C8 : Study of Poet and his age : Tulsidas/Nirmala



## ELECTIVE COURSES

- HI E1 : Novel and Realism  
HI E2 : Marxist Approach to Literature  
HI E3 : Rise of Press and reading Public during  
the 19th Century and Freedom Struggle,  
and Romantic Movement in Hindi.  
HI E4 : Short Stories and Drama and Theatre  
HI E5 : Literature and Culture-Tradition of India  
HI E6 : Evolution of Khariboli in Hindi and Urdu  
HI E7 : Theories of Sanskrit Poetics  
HI E8 : Literary Generes.

### 1 3 Department of Konkani :

#### TEACHING FACULTY

- (1) O.J.F. Gomes, M.A , Ph.D.  
Professor and Head  
(Konkani prose, Poetry and Literary Criticism)  
(2) (Mrs.) P. S. Tadkodkar, M.A., D.H.E.  
Lecturer  
(Modern Konkani Prose)

### M. A. KONKANI

#### ELECTIVE COURSES

- K E1 : Modern Konkani Prose-I  
K E2 : Modern Konkani Prose-II  
K E3 : Modern Konkani Poetry-I  
K E4 : Modern Konkani Poetry-II

Note : A Student can choose any two out of the above four Elective Courses available but should include Prose as well as poetry. Additional two courses may be taken optionally, if desired.

### 1 4 Department of Marathi :

#### TEACHING FACULTY

- (1) P. B. Wader, M.A., Ph.D.  
Professor & Head  
(Modern Literature, Modern Literary  
Criticism and Folk Literature)  
(2) S. D. Komarpant, M.A.  
Lecturer (Modern Literature & Linguistics)  
(3) V. D. Sawant, M.A.  
Lecturer

## **M. A. MARATHI**

### **CORE COURSES**

- MA C1 : Study of a Modern Author (Post 1818 A.D.)  
MA C2 : History of Marathi Literature  
( from 1874 to 1975 A D.)  
MA C3 : Literary Criticism  
MA C4 : Linguistics & Marathi Language  
MA C5 : Essay, Translation, Report Writing  
& Copy Writing in Advertising.  
MA C6 : Form of Literature  
MA C7 : A Study of two old Authors  
MA C8 : Folk Literature

### **ELECTIVE COURSES**

- MA E1 : Dalit Literature  
MA E2 : Development of Critical Thought in Marathi  
MA E3 : Post Liberation short story and Novel in Marathi  
by Goan writers.  
MA E4 : Periodicals in Marathi  
MA E5 : Applied Criticism  
MA E6 : Problems of Marathi Grammar  
MA E7 : " Christ Puran " and the Christian Tradition of  
Marathi Literature.  
MA E8 : Autobiographies by women writers in Marathi

### **1.5 Department of French : TEACHING FACULTY**

- (1) (Miss.) Belinda Fernandes, M. A, Ph. D,  
Lecturer  
(Comparative Literature; Goa and France)

## **M. A. FRENCH PRINCIPAL PAPERS**

- Paper I** - Study of two texts from 20th Century :  
Unseen translation from French into English.
- Paper II** - Study of two Texts from 19th Century :  
Unseen translation from English to French.
- Paper III** - French Civilization  
(1) History of Arts (Painting from 19th Century upto 1950, or History of French Cinema from 1946)  
(2) History of French from French Revolution to 1950 (Questions to be answered in French).
- Paper IV** (1) History of French Literature from its origin to the end of 16th Century  
(2) Two Texts
- Paper V** -History of French literature in 20th Century (Four texts-novel, drama, poetry, short stories or essay ). To be answered in French.
- Paper VI**(1) Essay in French  
(2) Oral in French

### **ALTERNATIVE TO SECOND LANGUAGE**

Note : The students joining M.A. (French) will have to offer one Core and one Elective subject in one of the Languages Viz. English, Marathi, Hindi or Konkani. So far as Portuguese as Second Language is concerned the students will opt either of the following two papers as the case may be for Part I and the remaining for Part II :-

- Paper III - Modern Portuguese Prose
- Paper VI - Essays and Translations and orals

#### **I.6 Department of Portuguese :**

##### **TEACHING FACULTY**

- (1) (Miss) Maria Selma De Vieira, Velho, M.A.,Ph.D.  
Lecturer  
(Portuguese Literature, the influence of India on Portuguese Literature, Arts, Culture & Philosophy (16th to 20th Centuries).

## **M A. PORTUGUESE**

- Paper I -Historia do teatro Portuguese-Seculos  
XVI, XVII, XXVIII
- Paper II -Literature Portuguese no Seculo XX
- Paper III -literature Portuguese no Seculo XX
- Paper IV -Historia do Teatro Portuguese Seculos  
XIX & XX
- Paper V -A Epopeia
- Paper VI-Oral Test
- Paper VII-Teoria de Comedia - Analise dos  
textos de Comedia estudados na Cadeira III
- Paper VIII-A fixacao da lingua escrita Portuguese  
abrares dos Corvistas-mores do Reino e da  
Literatura de Casa de Avis  
:- Panorama Geral.

### **I.7 Department of Economics | TEACHING FACULTY**

- (1) M A. Shahi, M.A. (Mysore) M.A. (Chicago),  
Ph. D. (Kent), F.S.S. (London)  
Professor and Head,  
(Monetary Economics, Development Planning and  
Project Appraisal, International Trade and  
Applied Econometrics)
- (2) A.R. Padoshi, M.A. Ph.D.  
Reader  
(Agricultural Economics, Development Economics  
and Monetary Economics.)
- (3) (Mrs.) S. M. Noronha, M.A., D.H.E.,  
Lecturer  
(Labour Economics and Industrial Relations)
- (4) E.D'Souza, M.A.  
Lecturer  
(Quantitative Methods and public Economics)

## M. A. ECONOMICS CORE COURSES

- EC1 : Economic Theory - I
- EC2 : Development Economics - I
- EC3 : Public Economics - I
- EC4 : Monetary Economics - I
- EC5 : Economic Theory - II
- EC6 : Development Economics - II
- EC7 : Public Economics - II
- EC8 : Monetary Economics - II

## ELECTIVE COURSES

- EE1 : Quantitative Methods - I
- EE2 : Labour Economics and Industrial Relations - I
- EE3 : Industrial Economics - I
- EE4 : Agricultural Economics - I
- x EE5 : Indian Economy - I
- x EE6 : Urban and Regional Economics I
- x EE7 : International Economics I
- EE8 : Quantitative Methods II
- EE9 : Labour Economics and Industrial Relations II
- EE10 : Industrial Economics II
- EE11 : Agricultural Economics II
- x EE12 : Indian Economy II
- x EE13 : Urban and Regional Economics II
- x EE14 : International Economics II
- x These Courses will be offered subject to availability of staff.

### I. 8 Department of History TEACHING FACULTY

- (1) B.S. Shastri, M.A., Ph.D.  
Professor & Head  
(Indo-Portuguese History)
- (2) K.M. Mathew. M.A., Ph.D,  
Lecturer  
(Indo-Portuguese History, Goa Freedom Movement)
- (3) (Miss) P.P. Kamat, M.A., Ph.D.,  
Lecturer
- (4) S.N. Bhat, M.A.,  
Lecturer

## **M. A. HISTORY**

### **CORE COURSES**

HC1	: Philosophy of History
HC2	: History of Goa 1789-1961
HC3	: Indian National Movement 1858-1947
HC4	: Europe since 1945
HC5	: History of USA since 1898
HC6	: History of Soviet Russia since 1917
HC7	: History of Latin America since 1900
HC8	: History of West Asia since 1900

### **ELECTIVE COURSES**

#### **GROUP I**

HE1	: Methodology of History
HE2	: Historiography in India
HE3	: Archives Keeping
HE4	: History of Ideas
HE5	: Ancient Indian Political Thought and Institutions
HE6	: History of Goa 1498-1788
HE7	: History of Portuguese Colonialism

#### **GROUP II**

HE8	: The Age of the Mauryas 321 BC to 187 BC
HE9	: Social, Cultural, Economic and Administrative History of the Mughals 1526-1707
HE10	: Social cultural, Economic and Administrative History of the Marathas 1646-1818
HE11	: India since Independence
HE12	: History of Africa since 1900
HE13	: Japan since 1905
HE14	: China since 1911
HE15	: South East Asia Since 1900

## **1.9 Department of Philosophy :**

### **TEACHING FACULTY**

- (1) R. A. Sinari, M.A., Ph.D.  
Professor and Head
- (2) A. V. Afonso, M. A. (Phil), M. A. (Soc.), Ph.D.  
Reader,  
(Philosophy of Science, Philosophy of Religion)
- (3) U. A. Vinaykumar, M. A., Ph.D.  
Lecturer
- (4) A. R. Rama Raju Ph.D.  
Lecturer

### **M. A. PHILOSOPHY**

#### **CORE COURSES**

PH C1	: History of Philosophical Ideas - I
PH C2	: History of Philosophical Ideas - II
PH C3	: Classical Indian Philosophy
PH C4	: Contemporary Western Philosophy
PH C5	: Philosophy of Mind
PH C6	: Meta - Ethics
PH C7	: Contemporary Indian Philosophy
PH C8	: Philosophical Logic

#### **ELECTIVE COURSES**

PH E1	: Schools of Vedanta
PH E2	: Philosophy of Religion
PH E3	: Political Philosophy
PH E4	: Philosophy of Social Sciences
PH E5	: Symbolic Logic I
PH E6	: Symbolic Logic II
PH E7	: Bio - Ethics
PH E8	: Phenomenology
PH E9	: Existentialism
PH E10	: Kant

- PH E 11 : Heidegger  
 PH E 12 : A. J. Ayer  
 PH E 13 : Sankaracharya  
 PH E 14 : Gandhi  
 PH E 15 : Philosophy of Science  
 PH E 16 : Dissertation (8 credits)  
 PH E 17 : K. C. Bhattacharya

**I.10 Department of Political Science :**  
**TEACHING FACULTY**

- (1) A. H. Doctor, M. A., Ph.D.  
 Professor and Head,  
 (Political Theory & Indian Political Thought,  
 International Relations )
- (2) M. J. Audi, M. A. Ph.D.  
 Reader  
 (Government & Politics of India, Indian Foreign  
 Policy, International Relations)
- (3) P. R. D'Souza, M. A., M. Phil (INU),  
 D. Phil. (Sussex)  
 Lecturer  
 (Political Theory & Political Sociology and  
 Public Administration)
- (4) M. M. Sangodkar, M.A.,  
 Lecturer
- (5) (Mrs.) S. D. N. B. Pandit, M. A.  
 Lecturer

**M. A. POLITICAL SCIENCE**  
**CORE COURSES**

- PS C1 : Political Philosophy  
 PS C2 : Government and Politics of India  
 PS C3 : International Relations  
 PS C4 : Public Administration  
 PS C5 : Ancient Indian Political Thought  
 PS C6 : State Politics in India  
 PS C7 : Modern Indian Political Thought  
 PS C8 : Political Sociology w. r. t. India



## ELECTIVE COURSES

- PSE1 : Democratic Theory  
PSE2 : Processes of Indian Politics  
PSE3 : Personnel and Financial Administration  
PSE4 : Peace, Security & Strategic Studies  
          OR Diplomacy  
PSE5 : Issues in India's Foreign Policy  
PSE6 : Development Administration  
PSE7 : Gandhi and Sarvodaya  
PSE8 : Modern Political Analysis  
PSE9 : Perspective on Political Development  
PSE10 : Indian Foreign Policy  
PSE11 : Government and Politics in India

### 1.11 Department of Sociology:

#### TEACHING FACULTY

- (1) S.R.Phal, MA.  
Reader and Head,  
(Social Change & Social Problems)
- (2) W.R. D'Silva, M.A Ph.D.  
Reader
- (3) Alito Siqueira, M.A.  
Lecturer  
(Sociology of Development)
- (4) S.Hegde, M.A, Ph.D.  
Lecturer
- (5) Manjit Singh, M.A., Ph.D,  
Lecturer

### M. A. SOCIOLOGY CORE COURSES

#### A. NON-CREDIT CORE COURSE :

SNC – Invitation to Sociology

#### B. CORE COURSES :

- SC 1 : Philosophies of the Societal Sciences.  
SC 2 : Theories of Society : 'Progress' .  
SC 3 : Theories of Society : 'Development' .  
SC 4 : Theories of Society : 'Decolonisation' .  
SC 5 : Societal Movements and Social Transformation,  
SC 6 : Social Stratification (with reference to India) .  
SC 7 : Symbolic (cultural) systems of Societal representation.  
SC 8 : Theories of Kinship The 'other' in Societal Sciences.

## **ELECTIVE COURSES**

- SE 1 : Changing Industrial Structures and Trade Unions in India.
- SE 2 : Dissertations on Goan Society .
- SE 3 : Issues in Goan Society : Tourism, Development and Culture.
- SE 4 : Language and Corporate Identity in Goa.
- SE 5 : Language, Literature and Society ; Ethnological and Sociological Reflections on the Ideological Primacy of Text and its Transmission/Reception.
- SE 6 : Law, Discipline and Legal Pluriasm .
- SE 7 : Liberation Discourse and the Transformation of Latin American Societies
- SE 8 : Modernity and Swaraj.
- SE 9 : Peasant Struggle, Land Reforms and Social Change.
- SE 10 : Population and Society in India
- SE 11 : The Question of Urbanisation.
- SE 12 : Religion as a Category of Societal Analysis in the works of Marx and Weber.
- SE 13 : Social Deviance.
- SE 14 : Sociology, History and the Historiography of India.
- SE 15 : Statistical Methods in Social Sciences.
- SE 16 : Women and Society in India.

### **Centre for Latin American Studies**

#### **TEACHING FACULTY**

The Centre for Latin American Studies offers Elective Courses in Latin American Studies for the Degree of M.A. in History, Political Science, Economics or Sociology, in collaboration with the respective department.

## **II FACULTY OF PURE SCIENCES**

### **II. 1 Department of Chemistry**

**(Inorganic Chemistry, Organic Chemistry, Physical Chemistry)**

#### **TEACHING FACULTY**

- (1) S. K. Paknikar, M.Sc., Ph.D.  
Professor and Head  
(Organic Synthesis, Thermal Reaction,  
Structure and Biogenesis of Natural Products)
- (2) V. N. Kamat Dalal M.Sc., Ph.D.,  
Reader in Inorganic Chemistry  
(Solid State Chemistry)
- (3) J. K. Kirtany, M. Sc., Ph.D.  
Reader in Organic Chemistry  
(Organic Synthesis/Structure and  
Biogenesis of Natural Products)

- (4) B. D. Desai, M.Sc., Ph.D.  
Reader in Inorganic Chemistry  
(Electro Chemistry)
- (5) J. S. Budkuley, M.Sc., Ph.D.  
lecturer in Physical Chemisly  
(Hydrazine Transition Metal Chemistry  
and Electrless Plating)
- (6) J.B. Fernandes, M Sc., Ph.D.  
Lecturer in Physical Chemistry  
(Solid State Electrochemistry  
and Catalysis)
- (7) K.S. Rane, M.Sc. Ph.D.  
Lecturer in Inorganic Chemistry  
(Solid State Chemistry)
- (8) S.P. Kamat, M.Sc., Ph.D.  
Lecturer in Organic Chemistry  
(Natural Products)
- (9) V.P. Kamat, M.S., Ph.D.  
Lecturer in Organic Chemistry  
(Organic synthesis, synthetic and transformation studies  
of terpenoids)
- (10) A. V. Salkar, M. Sc., Ph.D.  
Lecturer in Inorganic Chemistry  
(Environmental Chemistry and Photochemistry)
- (11) S. G. Tilve  
Lecturer

### M.Sc. Part I CORE COURSES

- C C1 : Selected Topics in Physical Chemistry & Practicals  
 C C2 : General Inorganic Chemistry and Practicals  
 C C3 : Stereo Chemistry and Reaction Mechanism & Practicals  
 C C4 : Basic Electronics, Spectroscopic and  
 Thermoanalytical Methods and Practicals

### ELECTIVE COURSES

- C IE1 : Mathematical preparations and computational Methods  
 C IE2 : Environmental Chemistry  
 C IE3 : Synthetic Methods in Organic Chemistry  
 C IE4 : Chromatographic Methods

### M. Sc. Part II Physical Chemistry

#### CORE COURSES

- CP C5 : Advanced Thermodynamics & Kinetics and Practicals

- CP C6 Electrochemistry & Surface Chemistry and Practicals  
 CP C7 : Quantum Chemistry & Statistical Thermodynamics and Practicals  
 CP C8 : Solid State Chemistry and Molecular Structure and Practicals

### ELECTIVE COURSES

- CP E6 : Electroanalytical Methods  
 CP E7 : Energy Sources  
 CP E8 : Atomic and Molecular Spectroscopy  
 CP E9 : Nuclear Chemistry and Radiochemical Methods  
 CP E 10(D) : Catalysis  
 CP E 11(D) : Superconductivity  
 CP E 12(D) : Hydrazine Chemistry  
 CP E 13(D) : Solid State Electrochemistry  
 CP E 14(D) : Computer Applications in Chemistry

### Inorganic Chemistry

#### CORE COURSES

- CI C5 : Theoretical Inorganic Chemistry and Chemical Spectroscopy and Practicals  
 CI C6 : Solid State Chemistry and Practicals  
 CI C7 : Co-ordination Chemistry and Magnetic Chemistry and Practicals  
 CI C8 : Selected Topics in Inorganic Chemistry and Actinides and Practicals

#### ELECTIVE COURSES

- CI E5 : Material Science II  
 CI E6 : Bioinorganic Chemistry  
 CI E7 : Organometallic Chemistry :  
     Homogenous Catalysis  
     Heterogeneous Catalysis  
 CI E8 : Material Science

### Organic Chemistry

#### CORE COURSES

- CO C5 : Reaction Mechanism - II & Practicals  
 CO C6 : Stereo Chemistry - II & Practicals  
 CO C7 : Physical methods in Organic Chemistry and Practicals  
 CO C8 : Chemistry of Natural products

## ELECTIVE COURSES

- CO E5 : Biogenesis & Biosynthesis
- CO E6 : Petroleum & Petrol Chemicals
- CO E7 : Newer methods of Pest-Control
- CO E8 : Chemistry of Perfumes & Flavours
- CO E9 : Organic Polymer Chemistry
- CO E10 : Natural Products
- CO E11 : Industrial Organic Chemistry

## II.2 Department of Geology : TEACHING FACULTY

- (1) A G. Dessai, M.Sc.,Ph.D  
Reader and Head  
(Economic-Geology, Igneous Petrology  
and Geo-Chemistry)
- (2) P.S. Raikar, M.Sc.,Ph.D.  
Reader  
(Mathematical Geology, Geo-Chemistry  
and Engineering Geology)
- (3) T.A. Vishwanath, M.Sc.Ph.D.  
Lecturer  
(Igneous and Metamorphic Petrology  
and Geo-Chemistry)
- (4) K. Mahender, M.Sc., (Applied Geology),Ph.D.  
Lecturer  
(Sedimentology and Palaeontology)
- (5) A.G. Chachadi, M.Tech, (Applied Geology)Ph.D  
Ground water Hydrology)

## CORE COURSES

- GC1 : Crystallography and Minerology
- GC2 : Structural Geology & Geotectonics
- GC3 : Sedimentary Petrology
- GC4 : Metamorphic Petrology
- GC5 : Igneous Petrology
- GC6 : Principles of Stratigraphy and Palaeontology
- GC7 : World Stratigraphy and Indian Geology
- GC8 : Economic Geology

## ELECTIVE COURSES

GE1	: Remote Sensing
GE2	: Geochemistry
GE3	: Coal Geology
GE4	: Statistical Methods and Data Processing in Geology
GE5	: Micropalaeontology
GE6	: Advanced Igneous and Metamorphic Petrology
GE7	: Geochemical Exploration
GE8	: Petroleum Geology
GE9	: Exploration Geophysics
GE10	: Ground Water Geology
GE11	: Marine Geology
GE12	: Sedimentology
GE13	: Environmental Geology
GE14	: Engineering Geology
GE15	: Dissertation (on a field based topic)

### II.3 Department of Mathematics :

#### TEACHING FACULTY

- (1) S.G. Deo, M.Sc., Ph.D.  
Professor & Head  
(Theory of Ordinary and Partial differential  
Integral Equations Control Theory)
- (2) Y.S. Frahalad, M.Sc., Ph.D.  
Reader in Applied Mathematics  
(Mathematical Physics, Wave Propagation in  
Random media, Plasma Physics, Theoretical  
Oceanography)
- (3) M.T. Nair M.Sc, Ph.D.  
Reader  
(Functional Analysis and Approximation Theory)
- (4) A. Banerjee M.Sc.  
Lecturer  
(Differential Geometry and Topology)
- (5) A.J. Jayanthan M.Sc, Ph.D.  
Lecturer.  
(General Topology)
- (6) M. Ganesh, M.Sc., Ph.D.  
Lecturer  
(Non-linear Internal equations and  
Numerical Analysis)
- (7) Y.S. Valaulikar  
Lecturer

## **M.Sc. MATHEMATICS**

### **CORE COURSES**

M C1	: Linear Algebra
M C2	: Real Analysis
M C3	: Algebra I
M C4	: Topology I
M C5	: Complex Analysis I
M C6	: Functional Analysis I
M C7	: Ordinary Differential Equations
M C8	: Classical Mechanics

### **ELECTIVE COURSES**

M E1	: Numerical Analysis
M E2	: Discrete Mathematical Systems
M E3	: Probability Theory I
M E4	: Methods of Applied Mathematics
M E5	: Real Analysis II
M E6	: Complex Analysis II
M E7	: Algebra II
M E8	: Topology II
M E9	: Functional Analysis II
M E10	: Spectral Approximation
M E11	: Advanced Analysis
M E12	: Mathematical Models of Population Ecology
M E13	: Partial Differential Equations I
M E14	: Ordinary Differential Equations II
M E15	: Advanced Calculus
M E16	: Differentiable Manifolds
M E17	: Differential Geometry
M E18	: Oceanographic Fluid Mechanics.

## **M Phil. MATHEMATICS**

- I Compulsory Paper**  
Classical Dynamical Systems
- II Optional Papers (Any two of the following)**
  1. Numerical Analysis
  2. Numerical Functional Analysis
  3. Advance Theory of Ordinary Differential Equations

## II.4 Department of Microbiology :

### TEACHING FACULTY

- (1) (Miss. ) Suneela Mavinkurve, M. Sc., Ph. D.  
Professor and Head  
(General Microbiology, Microbial Degradation of Organic Compounds, Mushroom Cultivation, Retting of natural fibres)
- (2) Joe D'Souza, M. Sc., Ph.D.  
Reader  
(Geomicrobiology, Microbial Ecology, Photosynthesis, Agricultural Microbiology)
- (3) (Miss. ) Irene Furtado, M. Sc., Ph. D.  
Lecturer,  
(General Microbiology, Microbial Degradations, Transport of nutrients into Microbial Cells, Cellulases )
- (4) (Mrs. ) Saroj N. Bhonsale, M, Sc. Ph. D.  
Lecturer,  
(General Microbiology, Microbial Biochemistry, Environmental Microbiology, Microbial Transformation of Organic Compounds)

### M. Sc. MICROBIOLOGY

#### CORE COURSES

- MIC1 : Techniques in Microbial Biochemistry,  
(Separation Science)
- MIC2 : Environmental Microbiology and Pollution
- MIC3 : Microbial Biochemistry
- MIC4 : Practicals/ Laboratory Course
- MIC5 : Microbial Genetics and Genetic Engineering
- MIC6 : Agricultural Microbiology
- MIC7 : Industrial Microbiology
- MIC8 : Medical Microbiology and Virology
- 
- MIE1 : Immunology and related techniques
- MIE2 : Practical/ Laboratory
- MIE3 : Techniques in Microbial Biochemistry and Introduction to Computer applications
- MIE4 : Statistics and Taxonomy.
- MIE5 : Dissertation/ Seminar Assignment
- MIE6 : Food Microbiology
- MIE7 : Dissertation
- MIE8 : Geomicrobiology



## II.5 Department of Physics :

### TEACHING FACULTY

- (1) C. Mande, M. Sc , D. Phil., D. Sc. (Paris).  
F.A.Sc., F.N.A.Sc.  
Professor and Head,  
(X-ray Spectroscopy, Solid State Physics,  
Material Science )
- (2) R.B. Prabhu, M Sc., Ph.D. (Ohio state, USA)  
Reader,  
(Solid State Physics, Magnetism, Mix-Valence  
Heavy Fermion Super Conductivity )
- (3) J A.E. Desa, M.Sc., Ph.D. (Reading)  
Reader in Physics  
( Neutron diffraction, Solid State Physics )
- (4) P. R. Sarode, M. Sc. Ph. D  
Reader  
( X-ray Spectroscopy, Materials Science )
- (5) G.R.Bhat, M.Sc., Ph. D.  
Lecturer  
( Theoretical Solid State Physics &  
Statistical Mechanics)
- (6) (Miss,) Uma Subramaniam, M.Sc., Ph.D.  
Lecturer  
(Solid State Physics )

### M.Sc. PHYSICS

#### CORE COURSES

- P C1 : Mathematical Methods of Physics
- P C2 : Classical Mechanics
- P C3 : Relativity and Electromagnetic Theory
- P C4 : Electronics Practicals I
- P C5 : Quantum Mechanics II
- P C6 : Atomic, Molecular and Laser Physics
- P C7 ; Nuclear Physics
- P C8 : Solid State Physics Practicals

#### ELECTIVE COURSES

- P E1 : Quantum Mechnics I
- P E2 : Solid State Physics I
- P E3 : Electronics I
- P E4 : General Practicals
- P E5 : Statistical Mechanics
- P E6 : Solid State Physics II
- P E7 : Electronics II

- P E8 : Electronics Practicals II
  - P E9 : Superconductivity
  - P E10 : Superconductivity Practicals
  - P E11 : Neutron Physics  
( Reactor Physics )
  - P E12 : Neutron Physics II  
( Neutron Scattering )
- M. Phil. PHYSICS**

**Part I**

- Paper I Theoretical Solid State Physics
- Paper II X - rays
- Paper III Materials Science

**Part II**

Dissertation.

**6. II Department of Botany & Zoology**

Note : Post graduation departments offering the M.Sc. (Botany) and M.Sc. (Zoology) courses of study are likely to be started in the current academic year.

**III FACULTY OF APPLIED SCIENCES**

**III.1. Department of Computer Science & Technology**

**TEACHING FACULTY**

- 1) V. V. Kamat, M. Sc., M. Phii.  
Lecturer
- 2) S.A.M. Rizvi, M.Sc., Post M.Sc. Dip in Comp Science  
Lecturer
- 3) S.D. Kamat. M. Tech.  
Lecturer
- 4) V.V. Navelkar  
Lecturer

Note : Visiting faculty from Indian Institute of Technology, Bombay, Indian Institute of Science, Bangalore, National Centre for Software Technology, Bombay and Poona University and the faculty members from other Departments of Goa University, will be assigned teaching work.

**MASTER OF COMPUTER APPLICATION**

**Semester - I**

- 1.1 : Introductory Programming
- 1.2 : Discrete Mathematical Structure
- 1.3 : Logical Organization of Computers
- 1.4 : Linear Algebra
- 1.5 : programming laboratory - I

**Semester - II**

- 2.1 : Business Data Processing
- 2.2 : Data and file structures
- 2,3 Accounting and Financial Management

- 2.4 : Computer Oriented Numerical methods
- 2.5 : Programming Laboratory-II

### **Semester - III**

- 3.1 : Computer Oriented statistical methods
- 3.2 : Computer systems architecture
- 3.3 : Computer bases optimisation models-I
- 3.4 : Introductory behavioural Sciences
- 3.5 : Introduction of organizational structure
- 3.6 : Programming Laboratory-III

### **Semester - IV**

- 4.1 : Computer Oriented Optimization models-II
- 4.2 : Data Management
- 4.3 : System and information concept in organization
- 4.4 : Information analysis
- 4.5 : Managerial economics
- 4.6 : Programing Laboratory-IV

### **Semester - V**

- 5.1 : Performance Evaluation of Computer System and Computer Centre Management
- 5.2 : System analysis and design
- 5.3 : Data Communications network and distributed processing
- 5.4 : Elective-I
- 5.5 : System Development Project-I

### **Semester - VI**

- 6.1 : Elective-II
- 6.2 : Elective-III
- 6.3 : System Development Project-II

### **ELECTIVE COURSES**

- E1 : Personnel Management
- E2 : Artificial Intelligence
- E3 : Computer Graphics
- E4 : Translator Design
- E5 : Software Project Management
- E6 : Social and Cultural implication of information Technology

**E7 : Formal Language and Automatic Theory**

A student will pick three elective courses out of a set of seven courses related to Computers and Management.

**III 2 : Department of Marine Science**

**a) M.Sc Marine Science  
TEACHING FACULTY**

- (1) T. S. S. Rao, M.Sc,D.Sc.  
Co-ordinator & Head,  
(Biological Oceanography)
- (2) C. L. Rodrigues, M.Sc.,Ph.D.  
Lecturer  
(Marine Ecology & Dynamics)
- (3) G. N. Nayak, M.Sc.(A.G.),Ph.D.  
Lecturer  
(Marine Geology-Sedimentology)
- (4) H. B. Menon, M.Sc.,  
Lecturer  
(Physical Oceanography-Marine Pollution)

**Part I Examination (First Year)**

**Semester I**

Paper I	Physical Oceanography and Marine Meteorology
Paper II	Marine Chemistry
Paper III	Marine Biology
Practical I	Physical Oceanography
Practical II	Marine Chemistry
Practical III	Marine Biology

**Semester II**

Paper IV *	Marine Pollution & Biodeterioration
Paper V	Marine Geology
Paper VI	Mathematics, Statistics and Computer Programming
Practical IV *	Marine Pollution & Biodeterioration
Practical V	Marine Geology
Practical VI	Computer Programming

## **Part II Examination (Second Year)**

### **Semester III**

#### **Physical Oceanography**

Paper VII Fluid Mechanics  
Paper VIII Marine Meteorology  
Practical VII Fluid Mechanics  
Practical VIII Marine Meteorology  
Dissertation

#### **Marine Chemistry**

Paper IX Marine Geochemistry  
Paper X \*\* Marine Biochemistry  
Paper IX Marine Geochemistry  
Practical X \*\* Marine Biochemistry  
Dissertation

#### **Marine Biology**

Paper XI Marine Ecology  
Paper X \*\* Marine Biochemistry  
Practical XI Marine Biochemistry  
Dissertation

#### **Marine Geology**

Paper IX Marine Geochemistry  
Paper XII Sedimentology & Marine Mineral deposits  
Practical IX Marine Geochemistry  
Practical XII Sedimentology & Marine Mineral deposits  
Dissertation

### **Semester IV**

#### **Physical Oceanography**

Paper XIII Estuarine and Coastal oceanography  
Paper XIV Dynamic Oceanography  
Paper XV Dissertation & Viva Voce

## **Marine Chemistry**

- Paper XIII Estuarine and Coastal Oceanography  
Paper XVI Physical and Inorganic Chemistry of Seawater  
Paper XVII Dissertation & Viva Voce

## **Marine Biology**

- Paper XIII Estuarine and Coastal Oceanography  
Paper XVIII Marine Living resources  
Paper XIX Dissertation & Viva Voce

## **Marine Geology**

- Paper XIII Estuarine and Coastal Oceanography  
Paper XX Marine Volvanology and Stratigraphy  
Paper XXI Disertation & Viva Voce

### **b) M. Sc. Marine Biotechnology**

#### **TEACHING FACULTY**

- (1) T. S. S. Rao, M.sc., D.sc.  
Professor  
(2) U. M. X. Sangodkar  
Reader

#### **Part 1 Examination (First Year)**

##### **Semester - I**

Paper	I	General Oceanography & Marine Ecology
Paper	II	Biochemistry
Paper	III	Marine Microbiology
Paper	IV	General & Molecular Genetics Biophysics & Biostatistics
Practical	I	Marine Ecology and Collection Techniques
Practical	II	Microbial & Biochemical Techniques
Practical	III	Computer Applications

##### **Semester - II**

Paper	VI	Principles of Immunology
Paper	VII	Cell and Developmental Biology
Paper	VIII	Bioprocess Engineering
Paper	IX	Marine Pollution & Biodegradation

Paper	X	Genetic Engineering I
Practical	IV	Bioprocess Engineering
Practical	V	Plant and Animal Tissue Culture
Practical	VI	Molecular Genetic

## Part II Examination (Second Year)

### Semester III

Paper	XI	Genetics Engineering II
Paper	XII	Enzymes and Enzyme Engineering
Paper	XIII	Aquaculture
Paper	XIV	Marine Living Resources
Paper	II	Genetic Engineering

Assignment (Dissertation work to commence)

### Semester IV

Paper	XV	Application of Genetics Engineering
Paper	XVI	Marine Biotechnology

Dissertation.  
Viva Voice

## IV FACULTY OF COMMERCE AND MANAGEMENT STUDIES

### IV 1 Department of Commerce TEACHING FACULTY

- (1) Dr. S. M. Bijli, M. A. (Econ.), M. Com., LL. B.,  
DND (The Hague), Ph. D., MRES.  
Professor & Head
- (2) B. Ramesh, M. Com. M. Phil  
Lecturer
- (3) P. N. Reddy, M. Com., Ph D.  
Lecturer
- (4) M. Nandkumar, M. Com.  
Lecturer

### MASTER OF COMMERCE

From the academic session commencing from June 1990 the Department of Commerce is introducing Semester system for the Master of Commerce. This is for effective teaching and for uniformity with other universities.

### Course Structure :

There will be eight core papers which are compulsory in the First and Second Semesters four in each semester.

There will be Four optional Group consisting of Eight papers each, four papers in Third semester and four in the Fourth semester. There should be a minimum number of five students opted for any of the Four optional Groups offered. However there will be a minimum of one optional Group offered, and offering more than one group will be decided by the Department depending upon the availability of faculty and infrastructural facilities in a particular academic year.

#### SEMESTER I

- 1.1 Economic Growth
- 1.2 Principles of Managements
- 1.3 Quantitative Methods
- 1.4 Advanced Accounting

#### SEMESTER II

- 2.1 Economic Planning
- 2.2 Business Finance
- 2.3 International Trade
- 2.4 Marketing

#### SEMESTER III

Optionat Groups - (Any one of the Groups)

##### ACCOUNTING (A)

- 3A.1 Accounting Theory
- 3A.2 Managment Accounting
- 3A.3 Direct Tax Laws
- 3A.4 Advanced cost Accounting

##### Business Studies (BS)

- 3BS.1 Business Policy and Environment
- 3BS.2 Marketing Management
- 3BS.3 Financial Management
- 3BS.4 Entrepreneurial Management

##### Business Economics (BE)

- 3BE.1 Industrial Economics
- 3BE.2 Financial Markets and Institutions
- 3BE.3 Public Enterprises Management
- 3BE.4 International Economics Relations

##### Banking and Finance (BF)

- 3BF.1 Theory of Banking and Finance
- 3BF.2 Financial Markets and Indian Financial System
- 3BF.3 International Banking
- 3BF.4 Management of Financial Institutions.



Sub. Title .....  
Date of registration .....  
Marg. New Delhi-110011  
D.O. No. ....  
Date .....

**SEMESTER - IV**  
**OPTIONAL GROUPS**  
**Accounting (A)**

- 4A.1 Management Control Systems
- 4A.2 Tax planning and Management
- 4A.3 Security Analysis and Port-folio Management.
- 4A.4 Application of Operations Research and Computers Accounting

**Business Studies (BS)**

- 4BS.1 Personnel Management
- 4BS.2 Tourism and Hotel Management
- 4BS.3 Organisational Behaviour
- 4BS.4 Application of Operations Research and Computers to Business Studies,

**Business Economics (BE)**

- 4BE.1 Monetary Policy
- 4BE.2 Public Budgeting
- 4BE.3 Industrial Relations and Personnel Management
- 4BE.4 Application of Operations Research and Computers in Business Economics.

**Banking & Finance (BF)**

- 4BF.1 Commercial Bank lending and credit Management
- 4BF.2 Development Banking
- 4BF.3 Rural Banking and Finance
- 4BF.4 Application of Operations Research and Computers to Banking and Finance

**IV.2 Department of Management Studies**

**TEACHING FACULTY**

- (1) S.M. Bijli, M.A. (Econ.), M.Com., LL.B.,  
DND (The Hague), Ph.D. M.R.E.S.  
Professor and Head
- (2) A. Sreekumar, B. Sc. (Engg.), M.B.A.,  
Fellow of I.I.M.  
Reader
- (3) S. G. Hegde, M. B. A.  
Lecturer
- (4) Satish Kumar, B. Sc., M. B. A.  
Lecturer

# **MASTER IN MANAGEMENT STUDIES**

## **Semester I**

- 1.1 : Management Process**
- 1.2 : Organizational Behaviour**
- 1.3 : Communication Skills & Systems**
- 1.4 : Cost Accounting**
- 1.5 : Financial Accounting**
- 1.6 : Business mathematics & Statistics**
- 1.7 : Introduction to Computers**
- 1.8 : Indian Economy**
- 1.9 : Business Law**
- 1.10 : Managerial Economy.**

## **Semester - II**

- 2.1 : Perspective Management (Cases)**
- 2.2 : Business Environment**
- 2.3 : Management Accounting**
- 2.4 : Operations Research**
- 2.5 : Business Finance**
- 2.6 : Human Resources Management**
- 2.7 : Production Management**
- 2.8 : Marketing Management**
- 2.9 : Elements of Tax Management**
- 2.10 : Research Methodology**

In Semester III and IV two branches of specialisation will be offered viz. Marketing and Finance. The offering of any of any of these branches of specialisation will further depend upon a minimum of five students opting for the particular branch.

## **Semester III**

### **Compulsory Papers**

- 3.1 Management Information System and Computer Application.**
- 3.2 Productivity Techniques.**
- 3.3 Industrial Relation**
- 3.4 Indirect Taxes, MRTP and FERA.**

**Optional Group : Marketing**

( Any 4 of the following )

- 3.5 Advertising and Sales Promotion
- 3.6 Marketing Research
- 3.7 Sales and Distribution Management
- 3.8 Consumer/Industrial Buyer Behaviour
- 3.9 Product Management

**Optional Group : Finance**

( Any 4 of the following )

- 3.5 Tax Planning
- 3.6 Financial Planning ( Case studies )
- 3.7 Company Law
- 3.8 Development Banking
- 3.9 Advanced Financial Management

**Semester IV**

**Optional Group : Marketing**

- 4.1 Business Policy ( Term Paper )
- 4.2 International Marketing
- 4.3 Marketing Planning and Control System.
- 4.4 Advanced Marketing Managment
- 4.5 Industrial Marketing and Services Marketing
- 4.6 Social Marketing and Rural Marketing
- 4.7 Special studies in Marketing ( Project )

**Optional Group : Finance**

- 4.1 Business Policy ( Term Paper )
- 4.2 Money and Capital Markets.
- 4.3 International Finance
- 4.4 Financial Aspects of Project Planning and Formulation
- 4.5 Personnel Finance
- 4.6 Cost System
- 4.7 Special Studies in Finance ( Project )

**Optional Groups : Marketing and Finance**

Any 1 of the following

(Subject to an enrolment of a minimum of 5 students per subject)

- 4.8 Management of State Enterprises
- 4.9 Entrepreneurship Development
- 4.10 Hotel Management.
- 4.11 Management of Transport-Shipping Services.
- 4.12 Management of Mining.



## ADMISSION AND ELIGIBILITY RULES AND RESERVATION OF SEATS

### Procedure & Conditions for Admission to the Postgraduate Courses of study in the University Teaching Departments.

1.1. All applications for admission to M.A./M.Sc./M.Com. degree courses will be available on sale at the University office from 1st June every year. The cost of an admission form together with the Hand Book will be Rs 15-00 and for every additional form alone an extra charge of Rs. 5.00 will be charged. This amount will have to be deposited in the branch of the State Bank of India in the University premises and forms and Hand Books can be obtained on production of the challans for such payments.

1.2. All applications for admission to post-graduate degree courses will be received in the office of the Goa University upto 15th working day after the declaration of result of the qualifying examinations of this University or 20th June whichever is later.

1.3. Applications can also be received by the Goa University on payment of a late fee of Rs. 30 00 (over and above the cost of application form and Hand Book) upto the 10th July. Such applications will be considered only if seats are available in the relevant course of study after exhausting the merit list.

### Reservation of seats-

2.1. The reservation of seats for the following categories will be as shown under :-

a) As per the revised guidelines from the UGC, the reservation of seats in case of SC/ST candidates for admission to various courses of study in the University is on the basis of the percentage of their population of to the total population. Two percent of seats in each of the post-graduation courses, of study, subject to a minimum of one seat, will be reserved for candidates belonging to the scheduled castes (SC). There will be reservation of seats for the scheduled tribe candidates as there is no ST population in this State. If the above reserved seats remain vacant, after making all out efforts to fill them decision whether to throw them open to the general category or not will depend on the advice either from the UGC, or the Special Commissioner for Scheduled Castes/Tribes of the Government of India or the Union Ministry of Human Resource Development. Again, Scheduled Caste candidates who

have marks comparable to those of general category candidates in the merit lists, will be admitted as general merit candidates and will not be counted towards reserved quota.

b) 10 per cent of seats in each course of study except the MCA and MMS Courses of study are reserved for candidates of other Universities subject to a minimum of one. In the case of MCA and MMS this reservation will be 20%. If adequate number of candidates of this category is not available, the remaining seats will be filled in by candidates for the general category and vice-versa.

The following table gives the total number of seats available in each subject and the reservations therein.

Sr. No.	P. G. Courses	Total No. of seats	Reservation of seats		General Seats
			Scheduled Caste	Outside Universities.	
1.	M. A. (in each subject)	50	1	5	44
2.	M.Com.	100	2	10	88
3.	M.Sc.				
	a) Mathematics	30	1	3	26
	b) Physics	20	1	2	17
	c) Chemistry	30	1	3	26
	d) Microbiology	10	1	1	8
	e) Geology	10	1	1	8
	f) Marine Science	13	1	1	11
	g) Marine biotechnology	(to be specified later)			
4.	M.C.A.	30	1	6	23
5.	M.M.S.	30	1	6	23

### Merit lists

3.1 All admissions will be done strictly on the basis of merit. For this purpose separate merit lists based on the aggregate marks at the qualifying examination will be prepared in respect of (i) general candidates including SC/ST candidates (ii) SC candidates alone who do not get admission on the basis of the merit list of general category candidates, (iii) candidates from other Universities. The candidates passing the qualifying examination with one major subject for which admission is

sought will be placed above the candidates passing the qualifying examination with two major subjects in the merit list subject however to the condition that the candidates securing First Class will be placed above the candidates securing Second Class, and those securing second class will be placed above the candidates securing pass class. The eligibility criteria laid down hereinafter will be strictly adhered to for admission.

3.2. Candidates passing the qualifying examinations in more than one attempt will be deemed eligible for admission, but for the purpose of equating their performance with that of the candidates passing out the examination at first attempt, the percentage of marks (aggregate) obtained by them shall be deemed to be less by 3% for every subsequent attempt than the actual percentage of marks obtained by them at the aggregate in the qualifying examination.

3.3. A merit list based on the aggregate marks will be prepared in respect of applications received upto the 15th working day after declaration of results of the qualifying examination of this University or upto the 20th June whichever is later. Seats will be allotted strictly on the basis of merit.

#### **Change of faculty/subject :**

4.1. Candidates who have passed the Bachelor's degree examination of this University or any other recognised University in the faculty of Arts, Humanities and Social Sciences and secured at least 40% of the aggregate marks may seek admission to the M.A. degree course in a subject in which they have not obtained the Bachelor's degree with a minimum three units. Similarly, candidates passing out the Bachelor's degree of this University or of any other recognised University in a Faculty other than the faculty of Arts, Humanities and Social Sciences with at least 40% of the aggregate marks may also seek admission to the M. A. degree course of study of this University. Both these types of candidates will have to apply to the Registrar (in the prescribed form) on or before the fifteenth working day after declaration of the results of the Bachelor's degree examination concerned of this University, or 20th June, whichever is later, for such change of subject or faculty.

A written test consisting of two papers as under will be held in the subject in which the candidates desire to be admitted under this scheme of change of faculty/subject.

- i) An essay paper in the subject concerned (one hour duration).
- ii) A paper to test the candidates general acquaintance with the subject concerned (one hour duration).

4.3. The above test will be conducted by the Controller of Examination of this University. Candidates securing at least 40% marks in each of the above papers will be considered eligible for admission to the M.A. degree course in the subject against the vacant seats available, if any, after students from the merit lists are given admissions.

### **Rules Regarding Registration and Payment of Fees :**

5.1. No student will be permitted to register himself for more than one course of study of this University or any other University simultaneously.

5.2. All candidates who are given admission in the University teaching departments will have to fill in a registration form available free of charge from the University office and deposit the prescribed fee in the Branch of the State Bank of India in the University premises.

5.3. The annual tuition fees should be paid in full at the time of registration.

### **Eligibility and Availability of Seats**

#### **6.1. Faculty of Arts, Humanities & Social Sciences**

##### **(a) Eligibility**

A candidate for being eligible for admission to a course of study leading to the degree of Master of Arts in the Faculty of Arts, Humanities & Social Sciences of the University must have passed the examination of the Degree of Bachelor of Arts of the Goa University or any other University recognised equivalent thereto, with at least 3 units of 100 marks each in the subject for which admission is sought for the courses.

##### **(b) Availability of Seats :**

So far as the course leading to the Degree of M.A. in different subjects are concerned the intake capacity at the Part I level will be 50 in each subject.

#### **5.2. Faculty of Pure Sciences :**

M.Sc. degree course in Mathematics, Physics, Chemistry, Microbiology and Geology.



### **(a) Eligibility**

A candidate for being eligible for admission to a course leading to the degree of Master of Science in Mathematics, Physics, Chemistry, Microbiology or Geology must have passed the examination of the degree of Bachelor of Science of this University or from any other recognised University with at least 7 units of 100 marks each in the first, second and third years taken together in these subject for which admission is sought.

The candidates passing the T.Y.B.Sc. examination with two major subjects i.e. with atleast 3 units of 100 Marks in each subject, will be considered eligible to apply for admission to the M.Sc. Part I course in either of the said two major subjects.

### **(b) Availability of Seats :**

So far as the courses leading to the degree of M.Sc. in the subjects mentioned below are concerned the intake capacity at the Part I level will be as shown against each of them :

<b>Subjects</b>	<b>No. of Seats</b>
1. Mathematics	30
2. Physics	20
3. Chemistry	30†
4. Microbiology	10
5. Geology	10

†These 30 candidates will be equally distributed amongst the three branches of Chemistry.

### **6 3 Faculty of Applied Sciences :**

#### **(1) M Sc. degree course in Marine Science**

##### **(a) Eligibility**

A candidate for being eligible for admission to M.Sc. (Marine Science) course, must have passed the examination for the Degree of Bachelor of Science of this

**University or of any other University recognised as equivalent thereto with at least seven units of 100 marks each in any of the following subjects :**

1. **Bio-Sciences :**
  - a) **Zoology**
  - b) **Botany**
  - c) **Microbiology**
2. **Chemistry**
3. **Physics**
4. **Mathematics**
5. **Geology/Geo-Physics.**

#### **b) Availability of Seats**

**So far as the course leading to the M.Sc. Marine Science is concerned the intake at the part I level will be 12.**

**The allotment of seats for the candidates passing the qualifying examination in different subjects will be under :**

<b>Subject</b>	<b>No. of Seats</b>
<b>Bio Sciences : a) Zoology</b>	<b>2</b>
<b>b) Botany</b>	<b>2</b>
<b>c) Microbiology</b>	<b>1</b>
<b>Chemistry</b>	<b>2</b>
<b>Physics</b>	<b>2</b>
<b>Mathematics</b>	<b>1</b>
<b>Geology/Geo-Physics</b>	<b>2</b>
	<hr/> <b>12</b> <hr/>

**Besides the above 12 seats, one additional seat is reserved for candidates from outside Universities. This seat will be offered to that candidate securing the highest percentage of aggregate marks at the examination of Bachelor of Science in any of the above subjects.**

## **(II) M.Sc Marine Biotechnology**

### **(a) Eligibility**

A candidate for being eligible for admission to M.Sc. Biotechnology course, must have passed the examination for the Degree of Bachelor of Science (three year degree course) of this University or any other University recognised as equivalent thereto in any science subject and must have obtained 55% of the aggregate marks. Admission to this course of study will be made through an all India Admission Test to be conducted by the agency specified for this purpose by the Department of Biotechnology, Government of India, this agency presently being the Jawaharlal Nehru University, New Delhi. A notification for the admission test will be issued in the newspapers separately. Special coaching classes for a period of one month or so will be arranged by the Goa University for the Goan students.

**(1) Availability of Seats-** There are ten seats earmarked for the Goa University for the M.Sc. Marine Bio-technology course of study. All these 10 candidates will be admitted only on the basis of merit at the all India Admission Test. However, if the number of students from the colleges affiliated to Goa University qualifying at this test on the basis of merit is nil or less than four, Goan students who have obtained marks above the cut-off point at this test but have not figured in the merit list may be offered admission to make up for the admission of at least 4 Goan students. For instance, if only one Goan student gets admission on the basis of merit and all the remaining students are from outside, then 3 more Goan students will be admitted from the qualifying list. This will be in addition to the students admitted on the basis of the all India merit list.

**(2)** If no student from the colleges affiliated to the Goa University obtains marks above the cut-off point, then a separate admission test will be conducted by the same agency only for the students from the colleges affiliated to the Goa University for being admitted to the course.

## **III. Master in Computer Application**

### **a) Eligibility**

Admission to the 1st semester of the MCA courses is open to any candidate passing the graduation degree in Arts, Science, Commerce, Law, Business Administration, Engineering or Architecture of this University or any other University recognised as equivalent thereto, securing at least 55% of the aggregate marks at that examination. Further, the candidate must have offered Mathematics as one of the subjects at the H.S.S.C. (10+2) level or at a higher level.

Admission to this course of study will be made through an admission test for which a separate notification will be issued in the newspapers.

**b) Eligibility (Semester III-direct)**

Candidates having passed a post-graduation Diploma in Computer Application of this University or any other University recognised as equivalent thereto will be deemed eligible for admission directly to the Third Semester MCA provided they fulfill the following conditions :

- i) A Bachelor's degree of this or any other recognised University with at least 55% marks at the aggregate.
- ii) Mathematics as one of the subjects at 10 + 2 level or at a higher level.

Direct admission to the third semester of the MCA will also be made through an admission test for which separate notification will be issued.

**c) Availability and Reservation of Seats**

The intake capacity for the first year MCA will be 30 seats of which 24 seats (80%) will be reserved for candidates graduating from this University. The remaining 6 seats (20%) will be available for candidates passing through other Universities. In case sufficient number of candidates qualifying at the Admission Test is not found in any one of these two categories, the vacancies may be filled up with candidates from the other category, if available.

Direct admission to the third semester will be limited to five candidates only.

**Faculty of Commerce and Management studies :**

**(I) M Com. degree course :**

**(a) Eligibility**

A candidate for being eligible for admission to the course of study leading to the degree of Master of Commerce must have passed the examination for the degree of Bachelor of Commerce of this University or any other University recognised as equivalent thereto.

**(b) Availability of Seats**

So far as the course leading to the degree of M.Com. is concerned the intake capacity at the Part I level will be 100.

## **(II) Master in Management Studies (Semester-1)**

### **(a) Eligibility**

A candidate for being eligible for admission to the first Semester Course of study leading to the degree of the Master of Management Studies must have passed the Bachelor's degree in Arts, Science, Commerce, Law, Business Administration, Engineering or Architecture of this University or any other University recognised as equivalent thereto, securing at least 50% of the aggregate marks at the qualifying examination.

Admission to this course of study will be made through an Admission Test/ Interview/Group Discussion for which a separate notification will be issued in the newspapers.

### **(b) Availability and reservation of Seats :**

The intake capacity for the first year of the MMS course will be 30 seats of which 24 seats (80%) will be reserved for candidates graduating from this University. The remaining 6 seats (20%) will be available for candidates passing through other Universities. In case sufficient number of candidates qualifying at the admission test/interview and group discussion is not found in any one of these categories the vacancies may be filled up with candidates from the other category, if available.

## **SCHEME OF EXAMINATIONS**

So far as M.A./M.Sc./M.Com. courses of study are concerned the Scheme of Examination has already been incorporated in Ordinance 0.21 (Annexure I)

The Scheme of Examination for the M.A. degree Examination in French and Portuguese will be as under :

The Examination for the degree of M.A. (by papers) in French and Portuguese will be held in two parts viz. Part I and Part II and may be taken either (i) as in Scheme 'A' or (ii) as in Scheme 'B'.

### **Scheme 'A'**

In Scheme 'A' there shall be a University Examination for full marks in each Paper. Part I Examination shall be held at the end of first year, and Part II examination shall be held at the end of second year.

### **Scheme 'B'**

In Scheme 'B' there shall be in each Paper in each Part an Internal Assessment for 60 percent of full marks assigned to the Paper, and a University examination for the remaining 40 percent of the full marks to be held at the end of the year.

The regulations relating to the subjects of Examination and syllabus shall be identical for both the Schemes unless otherwise provided.

A student shall have the option to choose either of the two Schemes referred to above. The option shall be communicated by the students in writing to the Head of the Department concerned before the commencement of the course for the part concerned. If however, a student wishes to switch over from Scheme 'B' to Scheme 'A' for Part I, he will be permitted to do so until the time he submits his form of application for admission to the said examination. If the student wishes to switch over from Scheme 'A' to Scheme 'B' for Part I, he will be permitted to do so before the first test or assignment of the first term of the Part I examination. He shall be permitted to appear for the examination only after he satisfies the requirement laid down by the University to qualify himself for appearing under the Scheme concerned.

The internal Assessment in each paper will be done throughout the year and the distribution of marks in each paper shall be as under :

## **Scheme of examinations for M.Sc. Marine Science/Marine Biotechnology.**

1. Those candidates who have put in the attendance at least 75 percent of lectures in each paper and practicals separately will be eligible for appearing at the semester examinations.
2. To pass each semester examinations, the candidate must obtain a minimum of 40 percent of marks, obtainable in each paper and in each practical including dissertation and viva voce, separately and at least 50 percent on the aggregate.
3. Those of the successful candidates who obtain at least 50 percent marks but less than 60 percent marks in part I and part II examination together including dissertation and viva voce, will be declared to have passed the M.Sc. Marine Science/Marine Biotechnology degree in the Second class. Similarly, those candidates who obtain 60 percent and above will be declared to have passed the M.Sc. Marine Science/Marine Biotechnology degree in the 1st class.
4. A candidate who obtains less than 40 percent marks in each of the paper/s or less than 50 percent in the aggregate will be deemed to have failed and he may be given 5 attempts within 5 years to appear and improve his marks without being required to keep any terms. In such cases, the re-examination will be held along with the next regular semester examination.
5. A candidate who fails to obtain 40 percent marks in any papers per practical except dissertation and viva voce will have to appear for only the paper or practical which ever the candidate has failed of the concerned semester/s, without being required to keep any terms. A candidate who passes in all papers and practicals but fails to obtain 50 percent in the aggregate will have to appear for papers and practicals of the concerned semester in which the candidate has secured less than 50% marks without being required to keep terms.
6. A candidate whose dissertation and viva voce have not been accepted i.e. who is awarded less than 40 percent marks in each of them will be permitted to revise and resubmit the same after a period of six months from the date of declaration of the results and should also appear for the viva voce.
7. A student who has satisfactorily kept terms from part I of the course shall be permitted to keep terms for part II course notwithstanding that he may not have

appeared for the part I examination or failed there at. However, no student will be allowed to appear for the III & IV semester examinations unless he has passed the I & II examinations, previously. The candidate who fails in the III semester examination of Part II will be permitted to appear for the IV semester will be withheld till he passes the IIIrd semester examination.

## Scheme for examination M.Sc. Microbiology course (1990-91)

Marking scheme for practical examination

### a) **Elective Practical** (Internal Examination)

- i) Duration - 2 days
- ii) Total marks - 100

#### Distribution of Marks

- Mid-point test - 25 marks
- End of course Exam - 70 marks
- Journals - 5 marks

### b) **Core Practical** (External Examination)

- i) Duration - 2 days
- ii) Total Marks - 100

#### Distribution of Marks

- Experimental - 80 marks
- Viva voce - 10 marks
- Journal - 10 marks

#### Distribution of Journal Marks

	Elective	Core
	Marks	
1) Neatness	1	2
2) Recording ability (Charts, Figures, Tables)	2	4
3) Interpretation of results & Conclusion drawn	2	4



Marking scheme for Elective :

For every elective course the total number of marks will be 100.

#### **Distribution of marks**

- a) Final comprehensive exam - 75 marks
- b) Mid point evaluation - 25 marks

Mid point evaluation for any elective paper would consist of either Test alone 25 marks or Test 15 marks in combination with seminar of 10 marks or home assignment of 10 marks as per the decision of the departmental council at meeting held at the beginning of Academic year.

The allocation of 60 marks in each paper assigned to internal work will be as under :-

1. 20 marks allotted for a written assignment
2. 40 marks for the internal tests in a paper to be held at a regular interval as may be notified from time to time.

A student shall have to offer for Part II of the examination that Scheme only with which he has passed the Part I examination or appeared and failed in Part II examination or registered for the Part I examination.

Provided however, that if a student who has passed Part I examination with Scheme 'B' desires to appear for Part II examination with Scheme 'A' he shall be permitted to do so subject to his passing Part I examination with Scheme 'A' at an earlier attempt.

#### **Distribution of Seminar or Assignment marks**

Matter presented/literature survey	— 5 marks
Understanding of Material	— 3 marks
Presentation/skill/writing style	— 2 marks

Marking to be done by a panel of minimum 3 members as decided by Department Council.

#### **Dissertation**

- a) Topics will be listed and finalised during department council meeting.

- b) Topics will be allotted to individual student by the 28th Feb of the 1st Year of the M.Sc course.
- c) Student would present literature survey on their respective dissertation topic any time between the 21st-31st of July of the 2nd Year of the M.Sc. courses.
- d) Student will submit a completed and certified copy of dissertation to Department by the 31st of January of 2nd Year of the M.Sc. course.
- e) The guiding teacher and the Departmental Council would suggest a panel of examiners from the list of examiners (approved by the board of studies) from which the Vice-Chancellor may select any three.
- f) The examination pattern would include the
  - i) Viva-voce ii) Assessment of dissertation.
- g) The dissertation copies should be dispatched to the Examiner by 15th March by the examination section.
- h) The remuneration for evaluation of dissertation and subsequent Viva Voce will be of Rs. 100/- per dissertation. The panel for evaluation of dissertation would consist of 3 external examiners and the guiding teacher. Rs. 200/- as dissertation fee in addition to usual examination fee cannot be made applicable to Microbiology students as dissertation is not an **optional topic** but is an internal compulsory part of the course.

### **Rules for Improvement of Class/Performance for M A., M Sc./M.Com. Examination**

Candidates who have passed the M.A., M.Com. and M.Sc. degree examination of this University with the class mentioned in column 1 below and who desire to improve their class or percentage of marks as shown in Column 2 will be permitted at their option to appear again for the same examination with the same subject/s in both the parts viz Part I and Part II Simultaneously in compartments without being required to keep any terms within a period of five years following the April or October examination in which they pass. This facility will be available to the students till the post-graduate examination are held as per old pattern.

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**Note:** The above changes in the evaluation scheme for the M.Sc. Degree in Microbiology were effected subsequent to the franing of 0.21

<b>Column 1</b>	<b>Column 2</b>
a) Pass Class	a) Second class or at least 55 per cent marks of First Class
b) Second Class	b) At least 55 percent marks or First Class

If candidates who re-appear for the M.A./M.Sc /M.Com. degree examination under the improvement of class/percentage scheme mentioned above, failed to improve their class or percentage, their performance will be ignored.

## GENERAL INFORMATION FOR Ph.D DEGREE COURSE

i) A research student desirous of seeking registration for a research degree of this University has to enrol himself as a post-graduate research student for the same at a University Department or recognised institution of this University, which has on its staff at least one recognised teacher of the University for guiding research work for the degree and in the subject concerning the topic on which the research student desires to pursue his research work for the degree concerned. A research student enrolled at University Department or a recognised institution has simultaneously to apply through the Department or institution to the Registrar for registration as a post-graduate research student of this University. A person registering as a Post-graduate research student for any research degree of this University is required to select a problem of his research in consultation with his guiding teacher and work under the guidance of such teacher till the submission of his thesis.

ii) A research student from another University seeking registration in this University has to obtain, in the first instance a provisional statement of eligibility from this University on applying for the same in the prescribed form and payment of the prescribed fee. A provisional statement of eligibility is issued to a research student if he is found prime-facie eligible for registration to the course or study which he proposes to prosecute in this University. The provisional statement of eligibility issued to research student does not by itself entitle him to registration for the course concerned. It only declares him eligible for admission to a particular course of study in a particular year.

iii) A list of teachers recognised by the University for a research degree in various subjects together with the name of the University Departments/affiliated colleges/ recognised institution to which they are attached is available for reference in the office of the University. A research student may write to the teacher concerned in the matter of his registration for the course. The selection of a student for registration for research degree is left entirely to the discretion of the guiding teacher and the Head of the Department or Head of the Recognised Institution.

iv) Ordinarily, the research student will have to reside within the territorial jurisdiction of Goa University from the date of his registration for a period of 2 years. However in special cases on the recommendation of the guiding teacher and on the approval of the Dean of the concerned faculty, the Vice-Chancellor after ascertaining the validity of the reasons given by the candidate in his application may permit him to reside outside of the territorial jurisdiction of Goa University for the conduct of his research work.

## II ELIGIBILITY

i) A candidate who has obtained a Bachelor's Degree of Goa University or any other University recognised by this University and Master's Degree of this University or any other University recognised by this University securing at least a Second Class (50% & above, is eligible to register for Ph.D. Degree. However, the condition of Second Class (50%+above) may be waived in the case of candidates who have obtained M.Phil. Degree.

ii) The subject of research shall be one which relates to the main branch/branches of knowledge chosen for Post-graduate Degree. However a candidate wishing to conduct research in a subject of an inter-disciplinary character is eligible for provisional registration. The candidate shall submit an application to the guiding teacher for permission to do so. The application shall be considered by the Head of the concerned department and by the Dean of the concerned faculty. Their decision shall be final.

### iii) Clause for change of faculty

Where a candidate desires to register himself for the Ph.D. degree in a Faculty different from the one in which he obtained his Master's degree he shall submit an application to the Registrar for permission to do so through the recognised teacher under whom he proposes to work. The application shall be placed, before the committee of three recognised teachers nominated by the Vice-Chancellor for the Ph.D. Degree in the subject to test the fitness of the candidate to undertake the proposed line of research. It shall be open to this committee to test the candidate by either written or a viva-voce test or by both the kind of tests & the report of the committee shall be placed before the Academic Council which shall decide whether the application should be granted or rejected.

## III) REGISTRATION

(i) The research student shall apply to the Head of the Department suggesting the name of the guide under whose supervision he proposes to do research. The topic of research should be fixed by the research student in consultation with the guide.

(ii) Registration can be done at any time during the months of January and February or July and August.

(iii) A candidate for Ph.D. Degree should work in any of the University Departments or in any of the affiliated colleges and recognised institutions for P. G. Studies and research in the concerned branch of study and such a candidate be treated as a 'Research Fellow' and not a student.

(iv) The College teachers who have put in ten years of continuous service as teachers at the graduate teaching level, in the affiliated colleges of Goa University or 5 years in Post-graduate teaching at a University or recognized institution and who state that they have done sufficient research work be allowed to work for the Ph.D. degree on their own, without the guide. In such cases the Head of the Department in the concerned subject will co-ordinate the work. The desirous candidate shall submit his application to Head of the concerned Department. The application shall be considered by the H.O.D. and Dean of the concerned Faculty and their decision shall be final.

(v) No candidate shall join any courses of study other than connected with the Ph.D. programme or appear for any other examination conducted by Goa University or any other University during the period of registration.

(vi) Every candidate shall submit to the Registrar a half-yearly progress report through the Guide of the progress of his work.

(vii) If a candidate's two consecutive half-yearly progress reports are not satisfactory or he fails to submit the report, the registration of the candidate will be referred to the Vice-Chancellor for further action which may include cancellation of Ph.D. registration.

(viii) Any research student whose case for registration is not covered by any of the ordinances above, shall apply to the Head of the concerned Department requesting that his case for registration be treated as a special case. The Head of the Department and the Dean of the Faculty shall forward the case to the Academic Council after satisfying about the merits of the case. However the decision of the Academic Council shall be final

#### **IV PERIOD**

(i) A candidate for the Ph.D. degree will have to work for a minimum period of four terms (i.e. two years). The maximum period in which the candidate will have to submit his thesis would normally be eight terms (i.e. four years). However the Vice-Chancellor may extend the registration by maximum period of four terms, two terms at a time provided the candidate applied for the same giving reasons through his guiding teacher to the Vice-Chancellor.

#### **V GUIDES**

(i) The following persons are eligible to work as Guiding Teachers for Ph.D. degree :

(a) All the Professors and Readers working in the Departments of Goa University.

(b) All the persons recognised as Ph.D. guides by the Goa University,

(ii) The maximum number of candidates that a Guide could supervise for Ph.D. shall not ordinarily be more than five.

(iii) In all such cases where the topic of research is of an interdisciplinary nature, a Co-guide be appointed in consultation with the guiding teacher. However, the administrative responsibility of the smooth conduct of the research work and the final certification of the thesis shall remain with the main guide

#### **VI DOCTORAL COMMITTEE**

(i) For every candidate admitted to the Ph.D. degree there shall be a Doctoral Committee whose composition shall be as follows :

(a) The Vice-Chancellor (Chairman)

(b) The Head of the Concerned Department.

(c) The Guide

(d) The Dean of the concerned Faculty, and

(e) One subject expert nominated by the Vice-Chancellor.

The subject expert would be selected by the Vice-Chancellor from the three names suggested by the guide

(ii) The Doctoral Committee would suggest to the Academic Council a panel of six names of examiners, in order of preference, to examine the thesis. The Academic Council would approve the panel and recommend it to the Executive Council. The Executive Council would appoint two examiners from the panel recommended by the Academic Council. (Thus the total number of examiners for the thesis would be three i. e. Guide as the internal examiner and two external examiners)

(iii) In the case of a candidate who submits his thesis without any guide, the Executive Council would appoint three examiners to adjudicate the thesis.

(iv) The Doctoral Committee shall meet within a month from the date of the receipt of the synopsis by the University and recommend the panel of six examiners to the Academic Council.

(v) The Registrar's office will contact the examiners appointed by the Executive Council and despatch the thesis to them immediately after obtaining their consent.

## VII SCALE OF FEE

(i) Registration fee for the Ph.D. Degree is Rs. 50/- All forms regarding registration and submission of synopsis are charged at Rs. 5/- per form.

(ii) Eligibility Certificate fee (for students coming from outside the jurisdiction of Goa University) is Rs. 100/-

(iii) The tuition fee per annum prescribed for Registration for the different courses for the Ph.D degree are as under ;

Faculty of Arts, Humanities and Social Sciences (including Mathematics)	Rs. 500/-
Faculty of Pure Sciences (excluding Mathematics)	Rs. 1000/-
Faculty of Applied Sciences	Rs. 1000/-
Faculty of Commerce and Management Studies	Rs. 500/-
Faculty of Technology	Rs. 1000/-
Faculty of Medicine	Rs. 1000/-
Faculty of Education	Rs. 500/-
Faculty Fine and Performing Arts	Rs. 1000/-
Faculty of Law	Rs. 500/-

(iv) The Examination fee for Ph.D. is Rs. 300/- to be paid at the time of submission of the synopsis.

(v) Honorarium to the Examiners including the internal Examiner

**(i) IN INDIA**

(a) Adjudication of the thesis Rs. 200/-

(b) Viva-voce Examination Rs. 100/-

**(ii) OUTSIDE INDIA**

Rs. 500/-

**VII EXAMINATION**

(i) Two months before submission of the thesis the candidate shall submit to the Registrar through his guiding teacher, a statement giving the title and a synopsis of the thesis along with the prescribed fee.

(ii) Not later than six months after the submission of the synopsis and after the expiry of the minimum period of research prescribed, the candidate shall submit with his application four copies of the thesis typewritten or printed embodying the result of his research and stating whether the work is based on the discovery of the new facts by the candidate or of new relations of facts observed by other and how the work tends to the general advancement of knowledge. The candidate shall forward a statement indicating the sources from which his information has been derived and the extent to which he has based his work on others and shall indicate which portion or portions of his thesis he claims as original. Where a candidate presents a joint work, he shall clearly state the portion which is his own, contribution and distinguished from the portion contributed by his collaborator. This statement shall be certified by the guide. The candidate may also forward with his application four copies of any original contribution, or contribution to the advancement of knowledge on the subject published by him independently or jointly with others upon which he relies in support of his candidature. The thesis shall be typewritten or printed in English and if the subject matter of the thesis relates to a modern European or Modern Indian language it may with the previous permission of the Doctoral Committee in the subjects in the Faculties of Arts and Science be written or printed in that language. (Note : Modern Indian Languages shall include Marathi, Konkani, Gujarath, Urdu, Kannada and Sindhi, etc., and Modern European Language shall include Spanish, German, French and Portuguese etc.,)

(iii) An extension of three months may be granted by the Dean on the recommendation of the Guide, for the submission of the thesis. However if the candidate fails to submit his thesis within the extended time he shall submit a fresh synopsis.

(iv) The candidate will not be permitted to submit as the thesis, any work for which a degree or diploma or other academic award has been conferred on him in his or in any other University or body. A candidate however, shall not be precluded from incorporating work which he has already submitted for a degree or diploma or other academic award in this or in any other University or body in a thesis covering a wide field, provided that he shall indicate in a written statement accompanying the thesis any work has been so incorporated.

(v) Four copies of the thesis fulfilling all the above said conditions shall be forwarded to the Registrar.



(vi) Every candidate shall submit with his thesis, a certificate from the Guide under whom he worked, that the thesis submitted is a record of research work done by the candidate during the period of study under him and that it has not previously formed the basis for the award to the candidate of any degree, Diploma, Associationship, Fellowship or other similar titles. The certificate should also include a statement from the Guide indicating the extent to which the thesis represents independent work on the part of the candidate.

(vii) The thesis shall be referred for examination to the Board of Examiners of adjudication. The Board of Examiners as suggested by the Doctoral Committee shall be appointed by the Executive Council on the recommendation of the Academic Council. The Board of Examiners shall be as given in 0.19.6 (ii) & (iii) The Guide/Head of the Department would act as a member Co ordinator of the said Board.

(viii) Each Examiner appointed to adjudicate the thesis is required to send his report to the Guide within two months of the receipt of the thesis. Such reports should include :

- (a) A critical survey of the work as embodied in the thesis and an evaluation of the work in terms of its contribution to the advancement of knowledge.
- (b) Details of any questions to be asked or points to be clarified at the Viva-voce examination.
- (c) A definite recommendation as to whether the thesis attains or not the required standard for the Ph.D. Degree.

(ix) The research students shall be allowed to appear for the Viva-Voce examination if his thesis is accepted by both the external examiners. If one of the two external examiners gives a positive recommendation for accepting the thesis and the other gives a definite recommendation against the award of the Ph.D, degree by providing explicit reasons for rejection of the thesis and by suggesting suitable modifications in the thesis the candidate shall resubmit his thesis after revising the same in the light of the suggestions made by the examiner

However, if the second examiner rejects the thesis without suggesting any modifications etc., the thesis shall be referred to the third examiner included in the board of examiners which is approved by the Executive Council. The thesis shall be accepted or rejected or resubmitted after revision, in the light of the report of the third examiner.

(x) However, the research student shall not be permitted to submit the same thesis if it has been rejected outright by the two external examiners.

(xi) If any Examiner makes a qualified recommendation the Co-ordinator shall request the concerned Examiner for a specific recommendation on the following :

- (a) To accept the thesis for the award of the degree.
- (b) To accept the thesis subject to satisfactory Viva-voce examination.
- (c) To resubmit the thesis after suitable modification.
- (d) To reject the thesis.

(xii) The relevant portion of the examiner's report would be made available to the candidate only in the case of rejection or recommendation for revision of the thesis by the examiners.

## **IX VIVA-VOCE EXAMINATION**

(i) Viva-Voce examination would be held only in the case the thesis is approved by both of the external examiners as mentioned in 0.19.8 (ix) above.

(ii) If one or both of the external examiners recommend the revision of the thesis, the Viva-Voce examination would be held only after the candidate resubmits his thesis (after duly revising it) and after the same is approved for Viva-Voce by both the external examiners.

(iii) Viva-Voce examination will be conducted after the receipt of the satisfactory report on the thesis. This examination in which a pass is obligatory shall be conducted by Board of the Examiners.

(iv) The oral examination is primarily designed to test the understanding of the candidate on the subject matter of the thesis including methodology employed and his/her competence in the general field of study. Since the points raised by the Examiners of the thesis are to be clarified during the oral examination, the report of the examiners who adjudicate the thesis will be made available to the Board for Viva-Voce examination:

(v) Members of the Board for the Viva-Voce examination should report specifically on whether the candidate's performance in the examination was satisfactory or not.

(vi) A candidate who is not successful at the Viva-Voce examination may be permitted to undergo the Viva-Voce a second time after a period of three months. No candidate will be permitted to take the Viva-Voce examination on more than two occasions.

(vii) If the candidate passes the Viva-Voce examination, the Board of Examiners shall consolidate the recommendation for the award of the degree based on.

(a) The report of the examiners

(b) The evaluation of the candidate's performance in the Viva-Voce examination and forward its consolidated report to the University.

(viii) The consolidated recommendations may be placed before the Executive Council for its approval.

(ix) The degree of Ph.D. shall not be conferred as an Honorary Degree.

(x) In case the thesis is rejected outright by both the external examiners, the research student shall have to register himself afresh if he so desires.

(xi) The Co-ordinator of the Viva-Voce examination shall inform the date and time of the Viva-Voce examination to the Head of the concerned Department and the Dean of the concerned Faculty to enable them to attend the Viva-Voce

examination if they so desire. Similarly the notice about the date and time of the Viva-Voce examination shall be put up by the Guide/Head of the Department, on the Notice Board for the information of all those who desire to attend the Viva-Voce examination.

xii) The thesis shall be made available to the public in the University Library 8 days prior to the date of Viva-Voce examination.

## **X SUBMISSION OF THESIS :**

(i) The copies of the thesis are to be bound in accordance with the following specifications -

(ii) Size of the paper : Quarto approx 10 inches by 8 inches, except for drawings, graphs and maps on which no restriction is placed. A margin of 1 1/2 inch to be left on the left hand side and bound in a standardised form as follows :

(iii) Art Vellum or cloth overcast, lettered boldly on the spine in gold (1/4 inch to 1/2 inch letters), degree, date and name and short title written or printed neatly and legibly on the front cover. A thesis which consist of a collection of pamphlet or excerpts or single pamphlet must be bound in a similar cover. Candidates are not permitted to type their thesis, on both sides of the paper. The thesis shall be typed with double spacing.

(iv) Overcasting : The acto or process of sewing over and over the pages of a book, usually shall be done when it consists of single page or when the paper is too poor or too heavy for normal sewing to be satisfactory.

(v) The full title, including the sub-titles, if any will have to be finalised by the candidate in consulltation with his guide before the expiry of two terms (i.e. one year) from the date of registration.

(vi) The candidate shall include in his thesis a statement of about 250 words, stating clearly as to how the thesis represents original contribution to knowledge, advancement of the existing knowledge etc , This statement should be bound in the thesis immediately before the beginning of the first chapter.

(vii) Each examiner appointed to adjudicate the thesis is required to send his report to the Guide within two months of the receipt of the thesis. Such reports should include :

- (a) A critical survey of the work as embodied in the thesis and an evaluation of the work in terms of its contribution to the advancement of knowledge.
- (b) Details of any questions to be asked or points to be clarified at the Viva-Voce examination
- (c) A definite recommendation as to whether the thesis attains or not the required standard for the Ph.D.Degree.

(viii) if any Examiner makes a qualified recommendation the Co-ordinator shall request the concerned Examiner for a specific recommendation on the following :-

- (a) To accept the thesis for the award of the degree,
- (b) To accept the thesis subject to satisfactory Viva-Voce examination.
- (c) To resubmit the thesis after suitable modification.
- (d) To reject the thesis.

## **General information Relating to the Degree of Master of Philosophy (M.Phil.)**

1. The degree of Master of Philosophy (M.Phil.) will be awarded in the following faculties :

- (1) Arts, Humanities, and Social Sciences
- (2) Pure Sciences
- (3) Applied Sciences
- (4) Commerce.

2. A candidate for being eligible for admission to the M.Phil. degree course must have passed the Master's degree examination in the concerned faculty of the University or an examination of any other University recognised as equivalent thereto, with at least a second class.

3. The fee structure for the M.Phil. course will be the same as that for the M.A./M.Sc./M.Com. courses in the respective faculties.

4. No candidate will be allowed to enrol for the M.Phil. degree in the subject other than the one in which he/she holds the Master's degree.

5. The enrolment to the M.Phil. course will be done at the beginning of the first term of each academic year.

6. The duration of the M.Phil. course will be of two years. The first year course will be called M.Phil. Part I and the Second year M.Phil. Part II.

7. The M.Phil. course will include three theory papers to be taught in M.Phil. Part I and a dissertation to be carried out in M.Phil. Part II under the guidance of a teacher of the concerned department.

8. The examination in the theory papers will be held at the end of the first two terms, i.e. at the end of the first academic year. A student will be permitted to submit his/her dissertation by the end of the fourth term, i.e. at the end of the second academic year, provided he/she has passed the examination in all three theory papers. Unless a student passes all the papers of the Theory examination at the end of the two terms he will not be admitted to M. Phil. Part II.

9. If a candidate is unable to submit his/her dissertation within one year after passing the theory papers, he/she can be given an extension of one year only for the submission of the dissertation. He/she will have to apply to the Head of the Department to get this extension through his/her guide.

10. Normally a candidate is expected to complete the M.Phil. course in four terms. If a candidate is unable to complete the entire course in eight terms his/her registration to the M.Phil. course will be cancelled.

11. The format of the dissertation will be the same as that of the Ph.D. thesis. A candidate will have to submit four copies of the dissertation alongwith a certificate signed by the guide and attested by the Head of the Department. The certificate will be of the following form :

“Certified that the dissertation is a record of research work done by the candidate himself/herself during the period of study under Guide and that it has not previously formed the basis for the award of any degree or diploma in the Goa University or elsewhere.”

12. The detailed syllabi of the theory papers will be prepared by the respective Boards of Studies.

13. In every subject Paper I will be compulsory and Paper II & III will be optional. For the Faculty of Arts, Humanities and Social Sciences as well as for the Faculty of Commerce Paper I will be on Research Methodology and Techniques (with reference to the concerned subject). In the faculties of Pure and Applied Sciences Paper I will be on any one of the thrust areas of the departments. The remaining two papers in all the subjects will be from the list of optional papers approved by the Boards of Studies, pertaining to the discipline concerned.

14. The medium of instruction and examination for the M.Phil. degree shall be English except for the languages for which the medium may be the language concerned.

15. The assessment of the theory papers will be by double assessment, each paper being assessed by one external and one internal examiner, the final marks allotted in the paper being the mean of the two assessments. In case the difference between the assessments is more than 20% in a paper a third examiner will be appointed whose verdict will be final.

16. External examiners for the papers will be appointed by the University as per the normal procedures. The internal examiners will be the teachers who have taught the papers.

17. The passing marks for each paper will be 50 out of 100 maximum marks. The candidates who obtain from 50% to less than 60% marks in the aggregate will be declared to have passed in the second division, while those who obtain above 60% marks in the aggregate will be placed in the first division in the M.Phil. Part I examination.

18. The candidates who fail in M.Phil. Part I papers can get their answer books revaluated as per the usual procedure of the University followed for the M.A./M.Sc/M.Com. examinations.

19. For those students who fail in one or more theory papers provision will be made for a supplementary examination after a suitable time interval.

20. The assessment of the dissertation will be done by one external examiner to be appointed by the University as per the usual procedures and an internal examiner who will normally be the guide of the candidate. In order to pass in the dissertation, it must be accepted by the external examiner.

21. The external examiner may ask the candidate to revise the dissertation and resubmit the same. The resubmission of the dissertation will have to be done within one year only.

22. In case an external examiner rejects a dissertation, it will be sent to another external examiner whose verdict will be final.

23. There will be only pass or fail in the dissertation, i.e. in M.Phil. Part II, there being no divisions given in this examination.

24. A candidate must pass in M.Phil. Part I and M.Phil. Part II in order to obtain the M.Phil. degree.





## **PART-II**

- 1. Affiliated Colleges-Non-professional**
- 2. Admission Rules and Eligibility**
- 3. Scheme of Examination**



## COLLEGES AFFILIATED TO THE GOA UNIVERSITY

### NON-PROFESSIONAL

1. **Name & Address of College** : Smt. Parvatibai Chowgule Cultural Foundations College of Arts and Science  
Margao, Goa-403 601.  
**Year of establishment** : 1962  
**Principal** : V. R. Shirgurkar  
**Phone** : Office : 22504  
Prin. Res : 22768  
**Courses offered** : Three year B.A. Degree Course  
Three year B.Sc. Degree Course  
Ph.D. - Botany  
P.G. Diploma in Computer Application  
**Hostel facilities** : A hostel for boys
  
2. **Name & Address of College** : Dhempe College of Arts & Science.  
Mira-Mar, Panaji, Goa  
**Year of establishment** : 1962  
**Principal** : G.V. Nadkarni  
**Phone** : Office : 5350 Prin : 5241  
Frin.Res : 5378  
**Courses offered** : Three year B.A. Degree Course  
Three year B.Sc. Degree Course  
**Hostel facilities** : Two hostels - one for boys and  
one for girls
  
3. **Name & Address of College** : St. Xavier's College of Arts & Science  
Mapusa, Goa-403 525.  
**Year of establishment** : 1963  
**Principal** : Fr. N. Pereira  
**Phone** : 2356  
**Courses offered** : Three year B.A. Degree Course  
Three year B.Sc. Degree Course  
**Hostel facilities** : Two hostels-one for boys and  
one for girls

4. **Name & Address of College** : Carmel College of Arts & Science  
for Women,  
Nuvem, Salcete, Goa-403 601.
- Year of establishment** : 1964
- Principal** : Sr. Jacinthe, A.C.
- Phone** : 20832
- Courses offered** : Three year B.A. Degree Course  
Three year B.Sc. Degree Course  
Three year B.Dom. Degree Course
- Hostel facilities** : One hostel for girls.
- 
5. **Name & Address of College** : Ponda Education Society's College of  
Arts and Science  
Farmagudi, Ponda Goa-403 401.
- Year of establishment** : 1986
- Principal** : A. K. Heblekar
- Phone** : —
- Courses offered** : Three year B.A. Degree Course  
Three year B.Sc. Degree Course
- Hostel facilities** : Nil
- 
6. **Name & Address of College** : M.E.S.College of Arts and Commerce  
Zuarinagar, Goa-403 726.
- Year of establishment** : 1972
- Principal** : M.S. Kamat
- Phone** : Office : 91 (Sancoale)  
Prin. Res : 3317
- Courses offered** : Three year B.A. Degree Course  
Three year B.Com. Degree Course
- Hostel facilities** : Nil

7. **Name & Address of College** : Srinivas Sinai Dempo College of  
Commerce & Economics.  
Altinho, Panaji, Goa-403 001
- Year of establishment** : 1966
- Principal** : D.S. Bhende
- Phone** : Office : 5340  
Prin.Res : 3965
- Courses offered** : Three year B.Com. Degree Course
- Hostel facilities** : Nil
- 
8. **Name & Address of College** : Shree Damodar College of Commerce  
and Economics  
Margao, Goa-403 601.
- Year of establishment** : 1973
- Principal** : D.V.Borkar
- Phone** : Office : 22086  
Prin.Res : 21725
- Courses offered** : Three year B.Com. Degree Course
- Hostel facilities** : Nil
- 
9. **Name & Address of College** : V.N.S. Bandedkar College of Commerce  
Post Box No. 20,  
Mapusa Goa-403 507
- Year of establishment** : 1974
- Principal** : G. G. Mayenkar
- Phone** : Office : 2488  
Prin.Res : 2188
- Courses offered** : Three year B.Com. Degree Course
- Hostel facilities** : Nil
- 
10. **Name & Address of College** : Goa Vidyaprasarak Mandal's  
College of Commerce and Economics  
Ponda, Goa-403 401.
- Year of establishment** : 1986

Principal : A.G. Jumde  
 Phone : 338 or 583  
 Courses offered : Three year B.Com. Degree Course  
 Hostel facilities : Nil

11. Name & Address of College : Cuncolim Education Society's  
 College of Arts and Commerce  
 Cuncolim, Salcete-Goa  
 Year of establishment : 1987  
 Principal : Mrs. Nirmala Gopinathan  
 (Ag. Principal)  
 Phone : —  
 Courses offered : B.A., B.Com (Ist & IInd Year only)  
 Hostel facilities : Nil

12. Name & Address of College : Naval Academy, INS Mandovi.  
 Verem, Goa-403 109.  
 (Admission restricted to  
 Naval Cadets only)  
 Year of establishment : 1987  
 Senior Education Officer : Cdr. L. Radhakrishnan  
 Phone : 7261, 7262, 7263  
 Courses offered : B.Sc. (Special)  
 Hostel facilities : for cadets only

13. Name & Address of College : Govt. College of Arts, Science  
 and Commerce, Sanquelim, Goa  
 Year of establishment : 1988  
 Principal : B.A. Gomes  
 Phone : 71  
 Courses offered : Three year B.A. Degree Course  
 : Three year B.Sc. Degree Course  
 : Three year B.Com Degree Course  
 Hostel facilities : Nil

14. Name & Address of College : Goa College of Home Science  
Bambolim, Goa-403 005.
- Year of establishment : 1988
- Principal : Z. Pabani
- Phone : —
- Courses offered : Three year B.Sc. (Home Science)  
Degree Course
- Hostel facilities : Nil
- 
15. Name of the college : Govt. college of Arts & Commerce,  
Khandola, Marcel, Goa.
- Year of establishment : 1989.
- Principal : J. B. Fernandes
- Phone : —
- Courses offered : B.A. & B.Com (Ist & IInd year only)
- Hostel facilities : Nil
- 
16. Name of the college : Govt. college of Arts & Commerce  
Quepem, Goa.
- Year of establishment : 1989.
- Principal : P. N. Timble.
- Phone : —
- Courses offered : B.A. & B.Com. (Ist & IInd Year only)
- Hostel facilities : Nil

## INSTITUTIONS RECOGNISED BY GOA UNIVERSITY

1. Name & Address of Institution : National Institute of Oceanography,  
Dona Paula, Goa-403 004  
Year of establishment : 1980  
Director : B.N. Desai  
Phone : Office : 6253, 6254, 6255, 6256.  
Director's Res : 4909  
Courses offered : Ph.D. in Biological and Marine Sciences  
Hostel facilities : Available
  
2. Name & Address of Institution : Directorate of Archives, Government  
of Goa, Panaji, Goa-403 001.  
Year of establishment : 1981  
Director : P.P. Shirodkar  
Phone : Office : 3232  
Director's Res : 4743  
Courses offered : Ph.D. in History  
Hostel facilities : —
  
3. Name & Address of Institution : Xavier Centre of Historical Research,  
Porvorim, Goa-403 521  
Year of establishment : 1978  
Director : T. R. D'Souza  
Phone : Office : 7227  
Courses offered : Ph.D. in History  
Hostel facilities : Available
  
4. Name & Address of Institution : Goa Institute of Management Studies  
Miramar, Panaji, Goa-403 001.  
Year of establishment : 1987  
Director : S. Narsimharaj  
Phone : Office : 3525  
Courses offered : Diploma in Business Management and  
Diploma in Administrative  
Management  
Hostel facilities : Nil



5. **Name & Address of Institution** : **Institute of Management Training and Research, St. Joaquim Road, Margao, Goa.**
- Year of establishment** : 1987
- Director** : M. B. Limaye
- Phone** : Office : 20314  
Director's Res : 22663
- Courses offered** : **Diploma in Business Management and Diploma in Administrative Management**
- Hostel facilities** : Nil

## **ADMISSION AND ELIGIBILITY RULES**

### **1. GENERAL**

Candidates passing the qualifying examination from any Board other than the Goa Board of Secondary and Higher Secondary Education and seeking admission in the Colleges under this University for various courses of study will have to obtain the eligibility certificate on payment of a fee of Rs. 100.00 Similarly candidates passing the qualifying examination from any other University, with the exception of students passing the qualifying examination from any of the college in Goa affiliated to the University of Bombay, will also have to obtain the eligibility certificate on payment of a fee of Rs. 100,00.

### **2 BACHELOR OF ARTS (B.A.)**

The course for the degree of Bachelor of Arts (B.A.) shall be of three years duration.

A candidate for being eligible for admission to the three-year integrated course leading to the degree of Bachelor of Arts must have passed the Higher Secondary School Certificate (Standard XII) examination conducted by the Goa Board of Secondary and Higher Secondary Education, in the following subjects :

- (i) English (Higher level or Lower level),
- (ii) Any of the Modern Indian Language or Classical Language or Modern Foreign Language (Higher Level or Lower Level)
- (iii) Four other subjects from among the subjects mentioned below to carrying a
- (vi) total of 400 marks.

OR

Three subjects from among the subjects mentioned below carrying a total of 300 marks and one subject from among the remaining optional subjects prescribed for Higher Secondary School Certificate Examination.

## SUBJECTS GROUPED UNDER THE FACULTY

1. Modern Indian Language (any one other than the one offered under compulsory languages)
2. Modern Foreign Language (Any one other than the one offered under compulsory languages),
3. Sanskrit |
4. Prakrit |
5. Pali |
6. Arabic | Any one Language out of them.
7. Persian |
8. Latin |
9. History
10. Geography
11. Mathematics & Statistics
12. Political Science
13. Sociology
14. Philosophy
15. Logic
16. Psychology
17. Economics
18. Child Development
19. Textile Laundry & Clothing

OR

1. English (Higher level or Lower level)

2-3. Any one vocational subject carrying 200 marks (from among 19 subjects prescribed for the H.S.S.C. Examination under the Technical Group, Commercial Group, Agricultural Group, Catering and Food Technology Group, Fishery Group and Para-medical Group)

4-6. Any three subjects from among the subjects under the Faculty of Arts each subject carrying 100 Marks.

The 19 Vocational subjects under the various Groups are listed below :

### 1. TECHNICAL GROUP

1. Electrical maintenance
2. Mechanical maintenance.
3. Scooter and Motor-Cycle Servicing.
4. General Contracting/General Civil Engineering.

## II. COMMERCIAL GROUP

5. Banking
6. Insurance
7. Office-Management
8. Marketing and Salesmanship
9. Small Industries and Self-employment
10. Elementary Industrial Management.

## III. AGRICULTURAL GROUP

11. Animal Science and Dairying
12. Farm Mechanics
13. Crop Science
14. Horticulture

## IV. CATERING AND FOOD TECHNOLOGY GROUP

15. Cookery
16. Bakery and Confectionary
17. Food Preservation

## V. FISHERY GROUP

18. Fish Processing Technology
19. Fresh Water Fish Culture

**OR**

The Higher Secondary School Certificate (Std. X(I)) examination conducted by the Goa Board of Secondary & Higher Secondary Education, and must satisfy the conditions laid down by the University for admission to the First Year Examination of three year integrated course leading to the degree **Bachelor of Science** or the **Bachelor of Commerce**.

**OR**

Must have passed an examination of another University or Body recognised as equivalent thereto.

### 3 BACHELOR OF SCIENCE (B.Sc.)

The course for the degree of Bachelor of Science (B.Sc.) shall be of three year duration,

A candidate for being eligible for the degree of Bachelor of Science (B.Sc.) must have passed the Higher Secondary School Certificate Examination (Std. XII) conducted by the Goa Board of Secondary & Higher Secondary Education in the following subjects :

- (i) English (Higher level or Lower level).
- (ii) Any of the Modern Indian Languages or Classical Language or Modern Foreign Languages (Higher Level or Lower Level).

(iii) to (vi) four other subjects from among the subjects mentioned below carrying a total of 400 marks,

**OR**

Three subjects from among the subjects mentioned below carrying a total of 300 marks and one subject from among the remaining optional subjects prescribed for Higher Secondary School Certificate Examination,

### **SUBJECTS GROUPED UNDER THE FACULTY**

1. Geography
2. Economics
3. Psychology
4. Mathematics & Statistics
5. Physics
6. Chemistry
7. Biology (Botany & Zoology)
8. Geology.

**OR**

The Higher Secondary School Certificate (Std. XII) Examination with vocational subjects conducted by the Goa Board of Sec. & Higher Sec. Education, Porvorim in the following subjects :

- 1) English (Higher/Lower Level)
- 2-3) Any one Vocational Subject carrying 200 marks from among the 19 subjects, prescribed for the H.S.S.C. examination under the Technical Group, Commercial Group, Agricultural Group, Catering and Food Technology and Fishery Group
- 4-5) The following three subjects carrying total of 300 Marks
  - 1) Physics
  - 2) Chemistry
  - 3) Biology (Botany & Zoology) or Mathematics & Statistics.

**OR**

Must have passed an examination of another University or Body recognised as equivalent thereto.

#### **4. BACHELOR OF COMMERCE (B.Com.)**

The course for the degree of Bachelor of Commerce (B.Com.) shall be of three year duration.

A candidate for being eligible for admission to the three year integrated course leading to the degree of Bachelor of Commerce (B.Com.) must have passed the Higher Secondary School Certificate (Std. XII) examination conducted by the Goa Board of Secondary & Higher Secondary Education, in the following subjects.

- (i) English (Higher Level or Lower Level)
- (ii) Any one of the Modern Indian Languages or Classical Languages or Modern Foreign Languages (Higher Level or Lower Level)
- (iii) to (vi) four other subjects from among the subjects mentioned below :

**OR**

The Higher Secondary School Certificate (Std. XII) examination with the vocational subjects conducted by the Goa Board of Secondary & Higher Secondary Education in the following subjects :

1. English (Higher/Lower Level)
- 2-3. Any one Vocational subject carrying 200 marks from among the subjects prescribed for the HSSC examination under the Technology group, Commercial group, Agricultural group, Catering & Food Technology group and Fishery group.

**OR**

Three subjects from among the subjects mentioned below and one subject from the remaining optional subjects prescribed for the H.S.S.C. Examination :

- |                                |                               |
|--------------------------------|-------------------------------|
| (i) Economics                  | (ii) Book-Keeping Accountancy |
| (iii) Organisation of Commerce | (iv) Geography                |
| (v) Mathematics & Statistics   | (vi) Secretarial Practice     |
| (vii) Co-operation.            |                               |

**OR**

The examination of another University or Body recognised as equivalent thereto.

## 5. B. Sc. (Home SCIENCE) DEGREE COURSE

Following is the eligibility criteria for the First year B.Sc. (Home Science) course of this University.

All students emerging from the 10+2 course or its equivalent be considered eligible, Students opting Home Science at the Higher Secondary level should be given preference. The course for the degree of Bachelor of Science (Home Science) shall be of three year duration.

**SCHEME OF EXAMINATION**  
**SCHEME OF EXAMINATIONS : B.A.**

This is a three year integrated course leading to the Degree of Bachelor of Arts (B.A.)

A student for B.A. degree examination will be required to offer 18 papers each of 100 marks and the break-up of these papers will be as under :-

**I. Compulsory Languages-Two papers**

English I-One paper

and

either Marathi or Hindi or French or Konkani or Portuguese or Sanskrit One paper

**II. Major Subjects-Eight papers in one subject**

**OR**

Five papers each in two subjects.

A student offering eight papers in one Major subject will be required to offer two Ancillary subjects with two papers in each;

A student offering two subjects at Major level (with five papers in each) will be required to offer one Ancillary subject with two papers;

A student offering one language at the Major level (eight papers) will be required to offer at least two papers in a subject under Sciences Group, as Ancillary papers;

A student offering two languages at Major level (with five papers in each) will be required to offer two papers in subject under Social Sciences Group, as Ancillary papers.

**III. Ancillary Subjects-Four papers in two subjects.**

**OR**

Two papers in one subject

**IV. Foundation Course Group-Two papers**

**V. Applied Component Group-Two papers**

The total number of subjects prescribed for the B A. degree examination are divided into four groups viz.

- i) the Language Group
- ii) the Social Sciences Group
- iii) the Applied Component Group and
- iv) the Foundation Course Group.

**Languages Group :**

English, Konkani, French, Marathi, Hindi, Portuguese, Sanskrit

**Social Sciences Group :**

Economics, Philosophy, History, Geography, Psychology, Sociology, Political Science

**Applied Component Group :**

Mass Communication, Environmental Studies, Cooperative Management, Child Psychology and Child guidance, Secretarial practice as applied Component, Home management, Population studies, Labour welfare, Industrial Relation and Trade unionism, Psychology of Adjustment

**Foundation Course Group :**

Paper I Elements of Social and Economic Life in India.

Paper II Scientific Method, Science, Technology and Development.

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Note : Music has been introduced as an elective subject at B.A. Degree course from the academic year 1988-89.



## SCHEME OF EXAMINATION B.Sc.

This is a three-year integrated course leading to the Degree of Bachelor of Science (B.Sc.) A student for the B.Sc. Degree Course will be required to offer 22 units-each unit will carry 100 marks-to be divided under different disciplines as under :-

Science Discipline-18 units

Foundation Course-2 units

Applied Component-2 units

A student who desires to do major in a particular subject should offer at least 7 units in that subject.

The distribution of 22 units over the three years of the B.Sc. degree course will be as under.

First Year B.Sc. (7 units) : 6 units in Science Discipline  
1 unit in Foundation course

Second Year B.Sc. (7 units) : 6 units in Science Discipline  
1 unit in Foundation course

Third Year B.Sc. (8 units) : 6 units in Science Discipline  
2 units in Applied Component

The examination in F.Y & S.Y will be held by the respective College. There shall be 2 examinations one at the end of each term and that the first examination will cover the syllabus taught in the first term and the second examination will cover the syllabus taught in the second term. The paper in each subject will be of 100 marks and of 2 hour duration. However experimental subjects will have 75 marks for each theory paper and 25 marks for each practical paper.

The following subjects shall be offered for the B.Sc. degree course

### Physical Sciences.

1. Physics (11 units)
2. Chemistry (11 units)
3. Mathematics (11 units)
4. Micro-biology (11 units)

### Biological Sciences

1. Botany (11 units)
2. Zoology (11 units)
3. Life Sciences (11 units)
4. Micro-biology (11 units)

### **Social Sciences**

1. Geography (5 units)

### **Earth Science**

1. Geology (11 units)

### **Foundation Course Group (consisting of 2 units)**

1. Elements of Social Group and Economic Life in India (One unit)
2. Scientific Method, Science, Technology and Development (One unit)

### **Applied Component Group (consisting of 2 units in one subject)**

1. Electronic Instrumentation
2. Drugs/Dyes
3. Marine Science
4. Computer Programming
5. Acturial Science

## **SCHEME OF EXAMINATION B.Sc. (Home Science)**

**Candidates will be examined in the following subjects;**

### **First Year**

1. English
2. Biological Sciences
3. Chemistry and Applied Chemistry
4. Introduction to Home Science
5. Principles of Design
6. Introduction to Human Development
7. Ecology and Environment
8. Physiology
9. Introduction to Family Resource Management
10. Food Science

## **Second Year**

1. Microbiology
2. Textile and Clothing
3. Human Nutrition
4. Women's Studies and Population Education
5. Economics
6. Sociology
7. Principles of Management and Residence
8. Food Preservation
9. Family Dynamics.

## **Third Year**

1. Child Care and Guidance
2. Dietetics and Family Meal Management
3. Clothing
4. Child Welfare
5. Community Nutrition
6. Consumer Education
7. Extension Teaching Methods
8. Extension Education in Home Science

## **SCHEME OF EXAMINATION B.Com.**

This is an integrated course leading to the degree of Bachelor of Commerce (B.Com.) A student for the B.Com. degree examination will be required to offer 18 Papers from the following five groups of subjects :

- I) Foundation Course Group-2 papers
- II) Applied Component Group-2 papers
- III) Commerce Discipline (compulsory) - 10 papers
- IV) Ancillary subjects - 1 paper
- V) Special Group - 3 papers

Distribution of subject over the three years of the B.Com. degree course will be as under :

**F.Y.B.Com :**

- 1) Foundation Course Paper I  
Elements of Social and Economics Life in India or History of modern civilization (China/Middle East Countries/Japan).
- 2) Business Communication
- 3) Business Economics including Eco. Development, Paper I
- 4) Commercial Geography
5. Mathematical & Statistical Techniques
- 6) Accounting & Financial Management Paper I.

**S Y. B Com :**

- 1) Foundation Course Paper II  
Scientific Method, Science, Technnology & Development
- 2) Business Economics including Eco Development, Paper II
- 3) Commerce & Marketing, Paper I (Business Planning)
- 4) Business Law
- 5) Applied Component Group, Paper I  
Export Management OR Introduction to Journalism  
OR Computer System OR Mass Communication  
OR Regulation of Trade Practices OR Advertising  
OR Rural Banking OR Labour Welfare & Industrial Relations
6. Accounting & Financial Management, Paper II

**T.Y.B. Com. :**

1) Commerce & Marketing Paper II  
(Industrial Organization and Management)

2) Applied Component Paper II  
Advertising OR Computer System

OR Coop. Management OR Export Management

OR Rural Banking OR Rural Industrialization

OR Management of Smallscale Industry

OR Introduction to Journalism

3) Ancillary Subject :  
Economic Systems OR Industrial Psychology

OR Government & Politics In India OR Sociology

OR Literature in Mod. Indian Language OR English Lit.

4) Special Group :  
Financial Accounting & Auditing Paper I, II, III

OR Cost Accounting Paper I, II, III

OR Business Management Paper I, II, III

OR Banking & Finance I, II, III



### **PART-III**

- 1. Affiliated Colleges Professional**
- 2. Admission Rules and Eligibility**
- 3. Scheme of Examination**





## PROFESSIONAL COLLEGES

1. **Name and Address of College** : Goa Medical College.  
Panaji, Goa-403 001  
**Year of establishment** : 1963  
**Dean** : G.J.S. Abraham  
**Phone** : Office - 4566,4567  
Dean (Direct) : 5388  
**Dean (Resi.)** : 4748  
**Courses offered** : M B.B.S.; MD,; M.S ; D.A ;  
D.F.M.; D P M ; D.V & D.; D.M.R.D.;  
D.P.H.; M.Sc. Biochemistry  
**Hostel facilities** : Five Hostels-3 for boys & 2 for girls
  
2. **Name & Address of College** : Goa College of Pharmacy,  
Panaji, Goa-403 001  
**Year of establishment** : 1963  
**Principal** : J. Emmanuel (Ag. Principal)  
**Phone** : Office : 5231  
Principal's (Res.) : 5278  
**Courses offered** : B.Pharm.  
**Hostel facilities** : Two Hostels-1 for boys & 1 for girls
  
3. **Name & Address of College** : Nirmala Institute of Education  
Altinho, Panji, Goa-403 001  
**Year of establishment** : 1963  
**Principal** : Jennifer Fonseca  
**Phone** : 5633  
**Courses offered** : B.Ed., M.Ed.  
**Hostel facilities** : one hostel for girls
  
4. **Name & Address of College** : College of Engineering,  
Farmagudi, Goa-403 405  
**Year of establishment** : 1967  
**Principal** : G.K. Facholi (Ag. Principal)  
**Phone** : Office : 176, 122, Prin : 37  
Prin Res. : 121

- Courses offered** : B.E. (Civil, Mechanical, Electrical and Electronics & Telecommunications)  
M.E. (Industrial Engineering & Foundation Engineering)
- Hostel facilities** : Five Hostels-4 for boys & 1 for girls
5. **Name & Address of College** : Goa College of Art,  
Altinho, Panaji, Goa-403001
- Year of establishment** : 1972
- Principal** : M G. Joshi
- Phone** : Office : 5181  
Prin. (Resi.) : 3295
- Courses offered** : B.F.A. (Bachelor of Fine Arts)  
Specialization in Painting & Applied Art  
M.F.A. (by Research)
- Hostel facilities** : A hostel for girls  
A hostel for boys.
6. **Name & Address of College** : Mahadeorao Salgaoncar College  
Mira-Mar, Panaji, Goa-403 001.
- Year of establishment** : 1973
- Principal** : M.N. Samant
- Phone** : Office : 3525  
Prin. Res : 4918
- Courses offered** : LL.B. (Gen), and LL.B.
- Hostel facilities** : Nil
7. **Name & Address of College** : Govind Ramnath Kare College of Law  
P.B.No. 777 Margao, Goa-403 601.
- Year of establishment** : 1979
- Principal** : P.N. Timble
- Phone** : 20314
- Courses offered** : LL.B. (Gen), and LL.B.  
Dip. in Labour Laws & Labour welfare  
and Taxation Laws
- Hostel facilities** : Nil

8. **Name & Address of College** : Goa Dental College & Hospital,  
Bambolim, Goa-403 005
- Year of establishment** ; 1980
- Dean** : K.P.Kamat
- Phone** : 5019
- Courses offered** : B.D.S.
- Hostel facilities** : Two Hostels-1 for boys & 1 for girls
- 
9. **Name and address of College** : Goa College of Architecture,  
Miramar, Panaji, Goa-403 001
- Year of establishment** : 1982
- Principal** : A.K. Srivastava
- Phone** : —
- Courses offered** : Five Year Degree Course in  
Architecture
- Hostel facilities** : Nil
- 
10. **Name and address of College** : Kala Academy's  
Goa College of Music,  
Panaji, Goa-403 001
- Year of establishment** : 1987
- Principal** : S.S. Haldankar
- Phone** : Office : 4293
- Courses offered** ; B.Music
- Hostel facilities** : Nil

## **ADMISSION & ELIGIBILITY RULES**

### **1. (i) Degrees of Bachelor of Medicine and Bachelor of Surgery (M.B.B.S)**

Candidates for the degree of M.B.B.S for being eligible for admission to a medical college affiliated to this University.

- i) Shall have attained the age of 17 years or shall attain that age on or before the 31st December of the year of their joining the college.
- ii) must have passed the Higher Secondary School Certificate Examination (XII Standard) conducted by the Goa Board of Secondary and Higher Secondary Education, Goa with the following subjects.
  - i) English (Higher Level or Lower Level)
  - ii) Any one of the Modern Indian Languages or Modern Foreign Languages or Classical languages (higher level or lower level)
  - iii) Physics
  - iv) Chemistry
  - v) Biology (Botany and Zoology)
  - vi) Any one of the subjects from among the remaining optional subjects prescribed for the H.S.S.C. Examination.

**OR**

iii) must have passed a equivalent examination of another recognized University or Body in the subjects of Physics, Chemistry and Biology. The subject of chemistry should include Organic Chemistry both theoretical and practical as a part of the syllabus for the said examination.

### **(ii) Post-Graduate Courses**

1. The Goa Medical College conducts the following Post-Graduate Degree and Diploma courses, for which purpose the various departments of the college have been approved by the Medical Council of India and the Goa University.—

### a) Doctor of Medicine (M.D.)

<b>Speciality</b>	<b>No. of seats per annum</b>
1. General Medicine	4
2. Obstetrics & Gynaecology	4
3. Paediatrics	2
4. Anaesthesiology	3
5. Radiology	2
6. Skin & V.D.	1
7. T.B. & Chest Diseases	2
8. Psychiatry	1
9. Physiology	2
10. Biochemistry	1
11. Pharmacology	2
12. Pathology	2
13. Forensic Medicine	2
14. Preventive & Social Medicine	1
15. Microbiology	2

### b) Master of Surgery (M.S.)

<b>Speciality</b>	<b>No. of seats per annum</b>
1. Surgery	4
2. Ophthalmology	2
3. Orthopaedics	2
4. Anatomy	3

### c) Post-Graduate Diploma Courses

<b>Speciality</b>	<b>No. of seats per annum</b>
1. Anaesthesiology	4
2. Radiology	4
3. Skin & V. D.	2
4. Psychiatry	2
5. Forensic Medicine	4
6. Preventive & Social Medicine	2

## 2. Selection

The candidates are selected for various Degree and Diploma courses twice a year i.e. January and July. Out of the total P.G. seats available, 25% of them are reserved for admission on the basis of All India Entrance Examination. The rest of the seats are filled up by the College purely on merit.

### **3. Duration, training etc.**

The degree courses, i.e. MD/MS are of three years duration and they get a concession of one year, if they already pass a diploma in the same speciality. The diploma is of two years duration. All the students registered for M.D. and M.S. and diploma courses are generally given a job of Junior Residency, failing which they are supported by P.G. Fellowship.

The training programme comprises of didactic teaching, clinical teaching by bed side where applicable, practical laboratory training and supplemented by journal clubs; seminars, symposia and lectures from guest lecturers from outside. It is generally in conformity with the guidelines of M.C.I. and other Universities.

### **4. Examination :**

On completion of three years training, candidates for M. D. M. S. submit a dissertation of the research work done and appear for the University examinations. Similarly students for P.G. diploma appear for University Examination on completion of 2 years of training.

P. G. Examinations are held twice a year i. e. January and July. They are examined by a board of four examiners of which atleast 3 are external in 4 papers; practicals/clinicals and viva voce.

## **2. Degree of Bachelor of Dental Surgery (B.D.S.)**

Every candidate for being eligible for admission to a Dental College affiliated to this University.

- i) Shall have attained the age of 17 years or shall attain that age on or before the 31st December of the year of his joining the college.
- ii) must have passed the Higher Secondary School Certificate Examination (Std. XII) conducted by the Goa Board of Secondary and Higher Secondary Education, Goa with the following subjects :-
  - i) English (Higher Level or Lower Level)
  - ii) Any one of the Modern Indian Languages or modern Foreign Languages or Classical languages (higher level or lower level).
  - iii) Physics
  - iv) Chemistry
  - v) Biology (Botany and Zoology)

vi) Any one of the subjects from among the remaining optional subjects prescribed for the H.S.S.C. Examination,

**OR**

must have passed an examination of another University or Body recognised as equivalent thereto with the subjects of Physics, Chemistry and Biology.

### **3. Degree of Bachelor of Pharmacy (B. Pharm)**

(Revised four year course.)

A candidate for the examination for the degree of B.Pharm. must produce a certificate to the effect that he has passed:

1. The final examination of the Higher Secondary School Certificate Examination (Standard XII) conducted by Goa Board of Secondary and Higher Secondary Education, Goa or its equivalent examination, with

i) English (Higher level or lower level)

ii) Any one of the Modern Indian Languages or Modern Foreign languages (Higher level or Lower level)

iii) Mathematics and Statistics

iv) Physics

v) Chemistry

vi) Biology (Botany and Zoology)

as his subjects and have passed the H S S.C. examination at least in Second Grade/Class.

A candidate for the degree of B.Pharm. will be required to pass four examinations conducted by this University, viz. the First B. Pharm, the Second B.Pharm, the Third B. Pharm. and the Fourth B. Pharm.

The course of study for the Degree of B. Pharm. shall be of eight terms duration.

Failure to pass the First, the Second and the Third B.Pharm. examination will not disqualify the candidate from presenting himself on subsequent occasion on a new application being forwarded and fresh fee paid. However, for Fourth B. Pharm. failure to pass the Fourth B.Parm. Examination after four attempts will disqualify the candidate from presenting himself as candidate on any subsequent occasion.

### **4. Degree of Bachelor of Engineering (B.E.)**

(Civil, Mechanical, Electrical, Electronics & Telecommunication)

A candidate for being eligible for admission to the Bachelor of Engineering (B.E) degree course of the University must have passed the Higher Secondary School Certificate Examination (Std. XII) conducted by the Goa Board of Secondary and Higher Secondary Education, Goa, or an examination recognized as equivalent thereto, with the following subjects :

1. English (Higher Level or Lower Level)
2. Any one of the Modern Indian Languages or Modern Foreign Languages or Classical languages Higher level or lower level)
3. Mathematics and Statistics
4. Physics
5. Chemistry
6. Any one of the subjects from among the remaining optional subjects, Prescribed for the H.S.S.C examination and has obtained a **minimum of 50% marks** on the aggregate in the optional subjects of (1) Mathematics and Statistics (2) Physics and (3) Chemistry **at one and the same sitting**;

OR

must have passed the Higher Secondary School Certificate Examination (Std.XII) conducted by the Goa Board of Secondary and Higher secondary Education, in the following subjects :

1. English (Higher Level or Lower Level)
2. Mathematics and Statistics
3. Physics
4. Chemistry
5. Two papers in Engineering subjects from among the subjects prescribed under the said group by the H.S.S.C.Board Goa, and has obtained a **minimum of 50 percent marks** on the aggregate in the optional subjects (1) Mathematics and Statistics (2) Physics and (3) Chmeistry **at one and the same sitting**.

However, in the case of backward class candidates, the percentage of marks on the aggregate in the optional subjects of (1) Mathematics and Statistics (2) Physics and (3) Chemistry at the qualifying examination will be **45 percent at one and the same sitting**.

### **5. Master Degree of Engineering (M.E.)** (Foundation and Industrial)

Any person who has taken the degree of Bachelor of Engineering of this University or the degree of Bachelor of Engineering of any other University recognised as equivalent to the Bachelor of Engineering degree of this University be admitted to the degree of Master of Engineering in the special branch in which he has taken the degree of Bachelor of Engineering.

### **6. Degree of Bachelor of Architecture**

A candidate for being eligible for admission to the First year of the B.Arch. degree course-



must have passed H.S.S.C. examination conducted by the Goa Board of Secondary & Higher Secondary Education with the following subjects namely :-

- (i) English (Higher Level or Lower Level)
- (ii) Any one of the Modern Indian Language or classical languages Modern Foreign Languages (Higher Level or Lower Level)
- (iii) Mathematics and Statistics
- (iv) Physics
- (v) Chemistry
- (vi) Any one of the subjects from among the remaining optional subjects prescribed for the H S.S C. examination.

**OR**

an examination recognized as equivalent thereto;

And in addition must have studied Drawing upto the standard prescribed for the Intermediate Examination in Drawing and must have undergone, to the satisfaction of the Principal an entrance test conducted by the college.

The course leading to the degree of Bachelor of Architecture shall be a full time course comprising ten semesters each semester of the duration of one academic term.

There will be an examination at the end of each semester. A candidate for the degree of Bachelor of Architecture examination will be required to pass all the ten semester examinations,

The degree of Bachelor of Architecture will not be conferred upon a candidate unless the candidate has passed in all the papers and sessional work prescribed for each semester examination in accordance with the provisions relating to each semester examination.

## **7. Degree of the Bachelor of Fine Arts (painting/Bachelor of Fine Arts (Applied Art) B.F.A. (Painting/Applied Art)**

A candidate for being eligible for admission to the First year course for the degree of Bachelor of Fine Arts in painting/Applied Arts, in this University must have passed the Secondary School Certificate Examination (Std.X) with at least 35% marks in each of the following subjects :

- 1. English
- 2. Any one of the Modern Indian/Foreign/Classical languages.
- 3. Any three subjects from the following elective subjects :
  - (i) History
  - (ii) Geography

- iii) Civics
- iv) Economics
- v) Psychology
- vi) Logic
- vii) Mathematics

**OR**

i) If passed with five or more heads of passing in the first or second division.  
ii) A candidate studying for the degree of Fine Arts in Painting/Applied Art will have to undergo a training in prescribed study extending over five academic years, one year Foundation and four years of specialisation and will have to pass the following examinations :

- a) First Year Foundation-University Examination.  
(Common to both the courses of specialisation)
- b) Second year Painting/Applied Art-College examination.  
(English-University Examination)
- c) Third year Painting/Applied Art-University Examination.
- d) Fourth year Painting/Applied Art-College Examination.
- e) Fifth year Painting/Applied Art-University Examination.

### **8. Degree of the Master of Fine Arts (M.F.A.) by research**

A candidate for being eligible for admission to the Master of Fine Arts degree course (by research) in the branches of (1) Painting (2) Applied Arts and (3) History of Arts must be a teacher in the affiliated college of this University imparting instruction in Applied Arts/Painting and must have passed :

The B.F.A. degree in painting of this University or the Government Diploma in Drawing and Painting of the Government of Maharashtra or an examination of any other body recognized as equivalent thereto, for being eligible for admission to the M.F.A. degree by research in the branch of painting

**OR**

The B.F.A. degree in Applied Arts of this University or the Government Diploma in Applied Arts of the Government of Maharashtra or an examination of any other body recognised as equivalent thereto, for being eligible for admission to the M.F.A. degree by research in the branch of Applied Arts.

## OR

The B.F.A. degree either in the branch of painting or in the branch of Applied Arts of this University or the Government Diploma in Painting or Applied Arts of the Government of Maharashtra or an examination of any other body recognised as equivalent thereto, for being eligible for admission to the M.F.A. degree by research in the branch of History of Art.

And must have thereafter obtained three years experience of teaching to the classes leading to the B.F.A. degree in this University or the Government Diploma in Art.

### **9. BACHELOR OF LAW (GEN) AND LL.B. (THREE YEAR COURSE)\***

Admission to Bachelor of law (LL.B) General degree course shall be deemed to be simultaneously an admission to LL.B. Degree course and vice-versa.

The course for the Bachelor of Law (LL.B.) (General) degree shall be of two year duration and that for the LL.B. degree of three years duration provided, however, that the first two years of the LL.B. course shall be identical with those of the LL.B. (General course)

Candidate for the LL.B. (General/LL.B.) degree must have passed the the Bachelor's degree examination of this University in any Faculty or a corresponding degree examination of any other University recognised as equivalent thereto provided, however that the candidates passing the M.B.B.S. Examination must have been declared to have qualified for the M.B.B.S. degree of their respective Universities Candidates for the LL.B. (General) degree will be required to pass two examinations, the first to be called the 'First examination for the degree of LL.B. (General)/LL.B.', and the second to be called the Second examination for the degree of LL.B. (General/LL.B. Candidates for the LL.B. degree will be required to pass the aforesaid two examinations and the third examination for the degree of LL.B.

### **10 (a) DEGREE OF THE BACHELOR OF EDUCATION (B.Ed.)**

A candidate for being eligible for the degree of Bachelor of Education (B.Ed.) must have passed a Bachelor's degree examination of this University in any Faculty or a corresponding degree examination of any other University recognised as equivalent thereto and in addition must have, subsequent to his passing the Bachelor's degree examination :-

1. Kept two terms, the first and the second (separated over the maximum period of 2 consecutive academic year) in a College of Education.

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\* The medium of instruction and examination at the LL.B. degree examination in the faculty of law is English only.

2. Completed a course of practical works extending over two academic terms to the satisfaction of the Head of the Institution in which the candidate is enrolled.

## **10. (B) THE DEGREE OF MASTER OF EDUCATION (M.Ed.)**

Any person who has taken the degree of Bachelor of teaching or Bachelor of Education of this University or a degree of another University recognized as equivalent is eligible for admission to the Master of Education course.

A candidate desirous of appearing at the M.Ed. examination by paper shall undergo a regular course of study in an institution recognized for the purpose for two academic years after passing the B Ed. examination.

### **Scheme of Examination**

#### **Medical**

#### **FIRST M.B.B.S. EXAMINATION**

1. Human Anatomy
2. Human Physiology
3. Bio-Chemistry
4. Preventive and Social Medicine (not for examination)

#### **SECOND M.B.B.S. EXAMINATION**

No candidate shall be admitted to the Second M.B.B.S. examination unless he has passed the First M.B.B.S. Examination and has been engaged in medical studies at a Medical College affiliated to this University for a period of three academic terms after passing that examination.

1. Pharmacology including Pharmaco-therapeutics
2. Pathology
3. Microbiology
4. Forensic Medicine and Toxicology.

#### **THIRD M.B.B.S. EXAMINATION**

No candidate shall be admitted to the Third M.B.B.S. examination unless he has passed the Second M.B.B.S. Examination and shall have been engaged in Medical studies at a Medical College recognised by this University for at least one clear term after passing the second M.B.B.S. examination and for at least three years after passing the First M.B.B.S. examination.

1. Medicine, including Paediatrics
2. Surgery
3. Eye and E.N.T.
4. Obstetrics Gynaecology
5. Preventive and Social Medicine (Community Medicine)

## DOCTOR OF MEDICINE (M.D.)

### 1) General Medicine

Papers I to III—

Three papers on subjects relating to General Medicine and Therapeutics.

Paper IV—

An essay.

### 2) Obstetrics and Gynaecology

Paper I—Obstetrics and diseases of the new born

Paper II—Gynaecology

\*Paper III—General Medicine

Paper IV—An essay

### 3) Paediatrics

Paper I—

Diseases of Children, Development, Psychology and Child Welfare\*

Paper II—

Diseases of Children, one section in Paper II will be devoted to Paediatric Pathology.

\*Paper III—General Medicine.

Paper IV—An essay.

### 4) Anaesthesiology

Paper I—

Basic sciences related to Anaesthesiology.

Paper II—

Theory and Practice of Anaesthesia.

Paper III—

Clinical Science (Medicine and Surgery related to Anaesthesia).

Paper IV—An essay.

**5) Radiology\***

Paper I—

Physics as applied to Radiology (in place of Medical Diagnosis)

Paper II— Radio-diagnosis.

Paper III—Radio-therapy.

Paper IV—Essay pertaining to—

Radio—therapy

Radio—diagnosis

Radiation Physics or

Pathology in relation to Radiology.

(\*Registration of candidates for this branch is discontinued from the academic year 1982-83.)

**6) Skin and V.D.**

Paper I—

Basic Sciences in relation to Dermatology, Venereology and Leprosy.

Paper II—

Skin Diseases and Dermato-Therapeutics.

Paper III—

Internal Medicine pertaining to Dermatology and Communicable Diseases and their prevention (Venereal Diseases, Leprosy and other infectious Dermatoses.)

Paper IV—An essay.

**7) T. B. and Chest Diseases**

Paper I—

Medical, Surgical and Public Health aspects of Tuberculosis.

Paper II—

Diseases of Chest other than Tuberculosis.

\*Paper III— General Medicine.

Paper IV— An essay.

**8) Psychiatry**

Paper I—

A Paper on Neurology including questions on General Medicine.

Papers II and III—

Two papers including questions on Psychiatry, Psychology, Psychopathology, and related fields.

Paper IV—

An essay on any subject in Psychiatry.

## 9) Physiology

Paper I—General Physiology (including Biophysical principles & Physiological Chemistry (including Metabolism & Nutrition).

Paper II— Systemic Physiology,

Paper III—Applied Physiology (including Physiological tests for evaluation of functions).

Paper IV—Essay.

## 10) Biochemistry

Paper I to III—

Three papers on subjects relating to Medical Biochemistry.

Paper IV—An essay.

## 11) Pharmacology

Papers I and II—

Theoretical and experimental aspects of pharmacology and toxicology including Bio-assay, Chemical Pharmacology, etc.

and

Applied Pharmacology and Therapeutics including physiotherapeutics, immunotherapeutics, etc.

\*Paper III—General Medicine.

Paper IV—An essay.

## 12) Pathology

Paper I  
Paper II  
Paper III

} Pathology including general medicine.

Paper IV—Principles of Microbiology and Clinical Pathology.

## Orals and Practical Examination

An oral and practical examination in Pathology including Clinical Pathology and Microbiology lasting for three days

(N.B.— A candidate for the M.D. in Pathology will be required to put in one year's training in Microbiology including Parasitology and Clinical Pathology apart from the other general requirements).

### 13) Forensic Medicine

Paper I—

Basic Medical Sciences in relation to Forensic Medicine and Toxicology

Paper II—

Clinical Forensic Medicine and Toxicology including Forensic Psychiatry

Paper III—

Crime, Social disorganisations and the Indian Punitive law and fundamentals of Forensic Sciences.

Paper IV—

Essay pertaining to :

History of Forensic Medicine and Toxicology.

Medical Law and Ethics.

Modern Trends in Forensic Medicine and Toxicology.

### Oral and Practical Examination

An oral and practical examination in Forensic Medicine and Toxicology lasting for three (3) days.

\*Candidates who have passed the M.D. examination in General Medicine will be exempted from Paper III—

General Medicine prescribed for the branches concerned.

N.B.—(1) In all the branches there shall be a practical and oral examination and clinical examination in addition, in the clinical subjects.

(2) The essay in all branches will cover subjects of the speciality including history of the branch concerned. Optional themes shall be given for the essay.

(3) Each paper shall be of three hours' duration.

(4) Paper in General Medicine in the different branches shall be set and examined by the specialists in the respective branches.

### 14) Preventive and Social Medicine

Papers I to III—

Three papers on subjects relating to Preventive and Social Medicine.

Paper IV—An essay.

### 15) Microbiology

Paper I

Paper II

Paper III

Paper IV—General and Clinical Pathology.

} Microbiology including Parasitology and  
General Medicine.



## **Oral and Practical Examination**

An oral and practical examination in microbiology including Parasitology and Clinical Pathology lasting for three days.

(N.B.— A candidate for the M.D. degree in the branch of Microbiology will be required to put in one year's training in Clinical Pathology and Pathology.)

### **MASTER OF SURGERY**

#### **1) General Surgery**

Papers I to III—

Papers on subjects relating to General Surgery.

Paper IV—

An essay.

#### **2) Ophthalmology**

Papers I and II—

Ophthalmic Medicine and Surgery (including related Anatomy, Physiology, and Optics)

Paper III—

Ophthalmology in relation to General Medicine.

Paper IV—

An essay.

#### **3) Orthopaedics**

Papers I and II—

Papers on subjects relating to the speciality.

Paper III—

General Surgery.

Paper IV—

An essay.

#### **4) Anatomy**

Papers I to III—

Papers on subjects relating to the speciality.

Paper IV—

Essay, or Dissertation.

## **DENTAL**

### **FIRST YEAR EXAMINATION FOR THE B.D.S.**

1. General Anatomy and Histology
2. General Physiology and Biochemistry
3. Dental Materials

### **SECOND YEAR EXAMINATION FOR THE B.D.S.**

1. General and Dental Pharmacology
2. General Pathology, Microbiology and Parasitology
3. Oral Anatomy, Physiology, Histology & Embryology

### **THIRD YEAR EXAMINATION FOR THE B.D.S.**

1. General Medicine
2. General Surgery
3. Oral Pathology and Microbiology.

### **Final year Examination for the B.D S.**

#### **FIRST SEMESTER**

1. Orthodontics
2. Pediatric Dentistry
3. Oral Medicine Diagnosis and Radiology
4. Community Dentistry

#### **SECOND SEMESTER**

1. Prosthetic Dentistry
2. Periodontology
3. Conservative Dentistry (Operative Dentistry)
4. Oral Surgery, Local and General Anesthesia.

## **PHARMACY**

### **FIRST YEAR B. PHARM**

Paper I Mathematics-I

Paper II Physical Pharmacy

Paper III General Chemistry

Paper IV Pharmaceutics-I

Paper V General Microbiology and Elementary Biochemistry

Paper VI Pharmaceutical Engineering

Paper VII Sociology and Psychology

## **PRACTICALS AND ORALS**

1. Physical Pharmacy
2. General Chemistry
3. Pharmaceutics-I
4. General Microbiology and Elementary Biochemistry.

## **SECOND YEAR B.PHARM**

Paper I Mathematics-II

Paper II Pharmaceutical Technology

Paper III Pharmaceutical Chemistry (Inorganic)

Paper IV Organic Chemistry-I

Paper V Dispensing and Hospital Pharmacy

Paper VI pharmacology-I (Anatomy, Physiology and Health Education)

Paper VII Pharmaceutical Microbiology.

## **PRACTICALS AND ORALS**

1. Pharmaceutical Technology
2. Pharmaceutical Chemistry-I
3. Organic Chemistry-I
4. Dispensing and Hospital Pharmacy
5. Pharmacology-I
6. Pharmaceutical Microbiology

## **THIRD YEAR B.PHARM**

Paper I Organic Chemistry-II

Paper II Pharmaceutical Chemistry-II

Paper III Pharmaceutics-II

Paper IV Pharmacology-II

Paper V Biochemistry

Paper VI Pharmaceutical Management

## **PRACTICALS AND ORALS**

1. Pharmaceutical Chemistry-II
2. Pharmaceutics-II
3. Pharmacology-II
4. Biochemistry

## **FOURTH YEAR B. PHARM. (FINAL YEAR)**

**Paper I Pharmaceutical Chemistry III**

**Paper II Pharmaceutical Analysis**

**Paper III Pharmaceutics III**

**Paper IV Pharmacology III**

**Paper V Pharmacognosy**

**Paper VI Drug Store Management and Forensic Pharmacy**

### **PRACTICALS AND ORALS**

1. **Pharmaceutical Chemistry III**
2. **Pharmaceutical Analysis**
3. **Pharmaceutics III**
4. **Pharmacology III**
5. **Pharmacognosy**

## **ENGINEERING B.E.**

### **Degree of Bachelor of Engineering**

**(Civil, Mechanical, Electrical, Production, Electronics and Telecommunication)**

#### **FIRST SEMESTER**

1. **Applied Mathematics-I**
2. **Applied Physics-I**
3. **Applied Chemistry-I**
4. **Engineering Drawing-I**
5. **Engineering Mechanics-I**
6. **Communication Skills-I**
7. **Basic Workshop Practice**

#### **SECOND SEMESTER**

1. **Applied Mathematics-II**
2. **Applied Physics-II**
3. **Applied Chemistry-II**
4. **Engineering Mechanics-II**
5. **Basic Electricity and Electronics**
6. **Engineering Drawing-II**
7. **Communication Skills-II**
8. **Basic Workshop Practice-II**

## SECOND YEAR

### SEMESTER-III (M)

1. CMP Applied Mathematics III
2. CMEP strength of materials I
3. Engineering Geology I
4. Mechanical engineering
5. Surveying I
6. Fluid Mechanics I
7. Construction I
8. C. Testing of Materials

### S.E.SEM. III (E)

1. Applied Mathematics III
2. Electrical Circuit
3. Electrical Material Science
4. Heat power Engineering
5. Electrical Instruments
6. Strength of Materials

### S.E.SEM III (E&TC)

1. Applied Mathematics III
2. Electrical Instruments
3. Electrical Engg. I
4. Communication Circuits & Transmission lines.
5. Electrical Material Science
6. Electronic Devices & Circuits I

### SEMESTER IV (M)

1. CM Applied Mathematics IV
2. Structural Analysis I
3. Engineering Geology II
4. Surveying II
5. Fluid Mechanics II
6. Construction II
7. Building Drawing I

### S.E.SEM. IV (E)

1. Applied Mathematics IV
2. Electrical Circuit II
3. Hydraulic & Hydraulic Machinery
4. Electrical Machines I
5. Theory & Machines & Machine designs

#### **S.E SEM. IV (E&TC)**

1. Applied Mathematics IV
2. Electronic Components & Materials
3. Electrical Engg. II
4. Electronic Devices & Circuits II
5. Communication Engg. I
6. Network Analysis & Synthesis

### **THIRD YEAR**

#### **SEMESTER-V**

1. CM Applied Mathematics V
2. Structural Analysis II
3. Soil Mechanics
4. Hydraulic Machinery
5. Surveying III
6. Humanities

#### **SEMESTER-VI (Civil)**

1. Design of steel structures
2. Foundation Engineering
3. Building Design and Drawing
4. Transportation Engineering
5. Concrete Technology and Reinforced Concrete
6. Applied Hydraulics
7. Surveying practice practical Examination only)

### **Third Year Engineering (Mechanical)**

#### **SEMESTER V (M)**

1. CM Mathematics V
2. Dynamics of Machinery I
3. Engineering Metallurgy
4. Fluid Machinery
5. Heat and Mass Transfer
6. Production Process II

#### **SEMESTER VI (M)**

1. Mechanical Engineering Measurements
2. Dynamics of Machinery II
3. Internal Combustion Engines
4. Introduction to computer programme
5. Production Process III
6. Engineering Economics.

## **Third Year Engineering (Electrical)**

### **SEMESTER V (E)**

1. Applied Mathematics V
2. Electrical Machines II
3. Basic Electronics II
4. Electromagnetic Fields
5. Basic Control Systems,
6. Industrial Economics.

### **SEMESTER VI (E)**

1. Applied Mathematics VI
2. Industrial Organisation & Managements
3. Industrial Electronics
4. Electrical Machines III
5. Electrical power system Engineering
6. Elements of Communication system.

### **SEMESTER V (E&TC)**

1. Applied Mathematics V
2. Electromagnetic Fields
3. Basic Control Systems
4. Pulse & Digital Techniques
5. Communication Engineering II
6. Industrial Economics

### **SEMESTER VI (E & TC)**

1. Applied Mathematics
2. Integrated Electronics
3. Communication Engg. III
4. Antenna & Wave Propagation
5. Applied Electronics
6. Electronic Workshop Practice.

## **Final Year Engineering (Civil)**

### **SEMESTER VII (G)**

1. Theory of R.C. and P.C. structures
2. Environmental Engineering
3. Irrigation Engineering
4. Computer Programming
5. Elective I (Any one of the following)

- i) **Structural Analysis**
- ii) **Traffic Engineering and Control**
- iii) **Applied Hydrology**
- iv) **Air Pollution**
- v) **Geotechnical Engineering I**
- vi) **Introduction of Architecture and Town Planning**

#### **SEMESTER VIII (C)**

- 1. **Design and Drawing of Concrete Structure**
- 2. **Advanced Construction**
- 3. **Quantity Surveying**
- 4. **Project**
- 5. **Elective-II (Any one of the following)**
  - i) **Structural Dynamics**
  - ii) **Advanced High-way Engineering**
  - iii) **Hydraulic Structure**
  - iv) **Industrial Waste Treatment**
  - v) **Geotechnical Engineering II**
  - vi) **Construction Technology**

#### **Final Year Engineering (Mechanical)**

##### **SEMESTER VII (M)**

- 1. **Machine Design I**
- 2. **Thermal Power Engineering**
- 3. **Production Planning and Control**
- 4. **Industrial Engineering and Management**
- 5. **Elective I**
- 6. **Project**

##### **SEMESTER VIII (M)**

- 1. **Machine Design II**
- 2. **Refrigeration and Air Conditioning**
- 3. **Elective II**
- 4. **Project**



## **Final Year Engineering (Electrical)**

### **SEMESTER VII (E)**

1. Electrical power system Engineering II
2. Electronics Instruments
3. Electrical Machine IV
4. Design of Basic Electronic Circuits
5. Principles of Electric Design
6. Computer Programming 1980-81. Numerical Methods and Fortran Programming 1981 and onwards (title in the syllabus) L + P = 45

### **SEMESTER (VIII) (E)**

1. Electrical Drives and Controls
2. Elective I
3. Elective II
4. Project L + P = 44

### **SEMESTER VII (E&TC)**

1. Electronic Instruments
2. Numerical Methods & Fortran Programming
3. Design of Basic Electric Circuits
4. Comfracter & Microprocessor Techniques
5. Elective I

### **SEMESTER VIII (E&TC)**

1. Microwave Engg.
2. Radio & T.V. Engg.
3. Elective II
4. Project

## **Engineering M.E.**

### **M.E. (Foundation)**

#### **Part-I**

1. Advanced Soil Mechanics
2. Rock Mnchanics I
3. Advanced Foundation Engineering I
4. Soil Dynamics & Machine Foundation
5. Elective I\*

#### **Part - II**

1. Foundation for Marine structures
2. Advanced Method of analysis in Foundation Engineering
3. Advanced Foundation Engineering II
4. Elective II\*\*
5. Seminar

## **Part-III**

### **Dissertation**

#### **\* Elective I (Any one of the following subjects)**

1. Geotechnical process in Rock Mechanics
2. Underground structures
3. Engineering Geology
4. Embankment Engineering
5. Clay Mineralogy

#### **\*\*Elective II (Any one of the following subjects)**

1. Ground Improvements
2. Soil Foundation structure Interaction
3. Rock Mechanics II
4. Earthquake Engineering
5. Field Testing and Instrumentation

## **2. M E. (Industrial)**

### **SEMESTER I**

1. Operation Research-I
2. Planning and Control of production Systems

### **SEMESTER II**

3. Computer Methods in Industrial Engineering
4. Engineering Statistics
5. Reliability Engineering of Management Information Systems

### **SEMESTER III**

1. Operation Research-II
2. Advanced Statistical Quality Control
3. Facilities Planning and layout or Seminar

### **SEMESTER IV**

4. Methods Engineering
5. Principles of Management or Applied Time Series Analysis

### **SEMESTER V**

1. Project

## **Architecture-Degree of B.Arch.**

### **SEMESTER I**

1. Basic Design I
2. Graphics I
3. Design I
4. Architectural Building Construction & Materials I
5. Theory and Design of Structures I
6. Aesthetics and Art Appreciation I
7. Workshop I

### **SEMESTER II**

1. Basic Design II
2. Graphics II
3. Design II
4. Architectural Building Construction and Materials II
5. Theory and Design of Structures II
6. Aesthetics and Art Appreciation II
7. Workshop II

### **SEMESTER III**

1. Graphics III
2. Design III
3. Architectural Building Construction and Materials III
4. Theory and Design of Structures III
5. Surveying and Levelling I
6. History of Indian Architecture I
7. Humanities I (Culture)
8. Workshop III
9. Climatology

### **SEMESTER IV**

1. Design IV
2. Interior Design I
3. Architectural Building Construction and Materials IV
4. Surveying and levelling II
5. Theory and Design of Structures IV
6. History of Foreign Architecture II
7. Humanities (Culture) II
8. Workshop IV
9. Building Services I

## **SEMESTER V**

1. Design V.
2. Architectural Building Construction and Materials V
3. Theory and Design of structures V
4. Building Services II
5. Specification I.
6. History of Architecture III.
7. Humanities III
8. Working Drawing I
9. Interior Design II

## **SEMESTER VI**

1. Design VI
2. Architectural Building Construction and Materials VI
3. Theory of Design of Structures VI
4. Building Services III
5. Specification II
6. History of Architecture IV
7. Humanities IV
8. Working Drawing II
9. Quantity Surveying and Estimating

## **SEMESTER VII**

1. Design VII
2. Building Bye-Laws
3. Landscape I
4. Architectural Building Construction and Materials VII
5. Theory and Design of Structures VII
6. Building Services IV
7. Humanities V
8. Town Planning I
9. Specification III
10. Quantity Surveying and Estimating for Design VII

## **SEMESTER VIII**

1. Design VIII
2. Town Planning and Urban Design II
3. Landscape II
4. Architectural Building Construction and Materials VIII

5. Theory and Design of Structures VIII
6. Building Services V
7. Humanities VI
8. Working Drawing III
9. Professional Practice I

#### **SEMESTER IX**

1. Design IX (Project Dissertation I, Preliminary)
2. Working Drawing IV
3. Architectural Building Construction and Materials IX
4. Building Services VI
5. Specification and Materials IV
6. Professional Practice II
7. Electives
8. Theory and Design of Structures IX
9. Seminars

#### **SEMESTER X**

1. Professional Practice Viva-Voce  
OR
2. Professional training (six months) in an Architect's office.

### **First Year Examination for the Degree of Bachelor of Fine Arts in Painting/Applied Art**

#### **Theory**

- 1) English
- 2) History and appreciation of Art.

#### **Practicals**

- 3) **Drawing**
  - a) Drawing from nature
  - b) Drawing from human figure
  - c) Memory drawing and sketching
  - d) Drawing from man-made objects
  - e) Geometry and perspective.
  - f) Calligraphy
- 4) **Design & Colour**
  - a) Design 2D
  - b) Colour
  - c) Design 3D
  - d) Print Making
  - e) Library

## **Second year /Applied Art (College Examination)**

### **GROUP I**

- 1) English-(University Examination)
- 2) Advertising
- 3) Visual communication

### **GROUP II**

- 4) Drawing
- 5) Communication Design
  - a) Lettering and Typography
  - b) Press Layout
  - c) Poster Design
  - d) Label and Package Design
6. Subsidiary subjects
  - Photography.
  - Printing.
  - Screen Printing
  - Process Engraving.

## **Third Year Examination for the degree of Bachelor of Fine Arts (Applied Art)**

### **GROUP I**

- 1) Advertising (Theory)
- 2) Visual Communication. (Theory)

### **GROUP II**

- 3) Drawing (Illustration)
- 4) Communication Design.
  - a) Lettering and Typography.
  - b) Press Layout
  - c) Poster Design
  - d) Cinema Slide/TV Spot
  - e) Package/Book jacket.
- 5) Subsidiary Subjects (2)
  - Lithography
  - Book Binding
  - Process Engraving.
  - Packing
  - Photography
  - Screen Printing
  - Letterpress Printing.

**Fourth Year Examination for the Degree of Bachelor of Fine Arts  
(Applied Art)**

**GROUP I**

- 1) Advertising
- 2) Visual Communication

**GROUP II**

- 3) Communication Design I
- 4) Communication Design II
- 5) Any one of the following Elective .
  - a) Illustration
  - b) Lettering and Typography
  - c) Photography
  - d) Audio Visual
  - e) Exhibition/Window Display
- 6) Dissertation

**Final Year Examination for the Degree of Bachelor of Fine Arts  
(Applied Art)**

**GROUP I**

- 1) Advertising and Visual Communication (Theory)
- 2) a) Viva-Voce  
b) Dissertation.

**GROUP II**

- 3) Communication Design I
- 4) Communication Design II
- 5) Any one of the following Elective
  - a) Illustration
  - b) Lettering & Typography
  - c) Photography
  - d) Audio-Visual
  - e) Exhibition/Window Display

**Second Year Examination for the Degree of Bachelor of Fine Arts  
(Painting)**

**GROUP I**

- 1) English-University Examination)
- 2) History of Art and Ideas.
- 3) Aesthetics-(Indian)

**GROUP II (Practical)**

- 1) Drawing  
Part-A. Time Sketch,  
Part-B Creative Drawing
- 2) Painting
  - a) Still life.
  - b) Head study from life
  - c) Design-Pictorial and Colour.
  - d) Design-3D
- 3) Subsidiary Subject
  - i) Lino Cut
  - ii) Wood Cut
  - iii) Dry Point
  - iv) Etching
  - v) Lithography

Following two processes are to be introduced in due course.

- vi) Screen Printing
- vii) Photography

**Third Year Examination for the Degree of Bachelor of Fine Arts  
(Painting)**

**GROUP I (Theory)**

- 1) History of Art and Ideas.
- 2) Aesthetics (Indian and Western)

**GROUP II (Practicals)**

- 1) Drawing.  
-Part-A Time Sketch.  
-Part-B Creative Drawing
- 2) Painting.  
-Figure from Life (Full length)
- 3) Design.  
-Pictorial (Composition)



**4) Subsidiary Subject.**

- i) Lino Cut
- ii) Wood Cut
- iii) Dry Point
- iv) Etching
- v) Lithography

Following two processes are to be introduced in due course

- vi) Screen Printing
- vii) Photography

**Fourth Year Examination for the Degree of Bachelor of Fine Arts  
(Painting)**

**GROUP I**

- 1) History of Art and Ideas.
- 2) Aesthetics (Western)

**GROUP II**

- 3) Painting-Creative.
- 4) Painting-Mural
- 5) Painting-Portraiture
  - Part-A Drawing from Life (full figure)
  - Part-B Painting from Life (Bust or 3/4th Length)
- 6) Print Making
  - Any one selected process in Black and White or in Colour.

**Final Year Examination for the Degree of Bachelor of Fine Arts  
(Painting)**

**GROUP I (Theory)**

- 1) History of Art
- 2) Aesthetics
- 3) a) Viva-Voce
  - b) Dissertation.

**GROUP II**

Any three of the following subjects already selected in the fourth year.

- 1) Painting-Creative
- 2) Painting-Mural
- 3) Painting-Portraiture
  - Part-A Drawing full figure from life
  - Part-B Painting figure (3/4th length) from life
- 4) Print Making Black & White or Colour

## **SCHEME OF EXAMINATION LL.B.**

### **First examination for the degree of LL.B. (General)/LL.B.**

Candidates will be examined in the following six papers, each carrying 100 marks and of three hours duration.

**Paper-I Labour Law**

**Paper-II Principles of Contract, i.e. the Indian Contract Act. For  
General Principles (Section 1-75) -60 Marks**

**For Specific Contracts, Viz. Indemnity, Guarantee, Bailment and  
Agency - 40 marks**

**Paper-III Law of Torts (including Statutory Torts)**

**Paper-IV Law of Crimes, i.e. Indian Penal Code.**

**\*Paper-V Indian Constitutional Law and History.**

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**\*(The course for study of Constitutional History has been confined to the study of the broad outline of the Government of India Act, 1935 in so far as it relates to the evolution of federal scheme and Indian Independence Act, 1947)**

Paper-VI Mohamedan Law and Indian Succession Act (Section 1 to 191 only)  
Candidates who have obtained exemption marks in any of the subjects named below under two years course at the First LL.B. examination shall be deemed to be exempted from the corresponding subject under the three-year Law course :

### Two Year Course

1. Law of Crimes with special reference to Indian Penal Code
2. The Law of Torts
3. The Indian Constitution
4. Principles of the Law of Contract with special reference to the first 75 sections of the Indian Contract Act.

### Three Year Course

1. Law of Crimes i.e. Indian Penal Code
2. Law of Torts (including statutory Torts)
3. Indian Constitutional Law and History
4. Principles of Contract i.e. the Indian Contract Act.

2) Second Examination for the degree of LL.B. (General)/LL B.

Candidates will be examined in the following six papers each carrying 100 marks and of three hours duration :

Paper I Legal Theory (jurisprudence) and Comparative Law.

Paper II Hindu Law.

Paper III Property Law (T.P. Act and Easements Act)

\*Paper IV Taxation (i.e. Income Tax & Sales Tax)

Paper V Law of Partnership Sale of Goods Act, and Negotiable Instruments Act.

Paper VI Company Law.

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\*The distribution of marks of marks for Paper IV Taxation (i.e. Income Tax and Sales Tax) is as under :

- i) The Indian Income Tax Act, 1961 - 70 marks
  - ii) The Central Sales Tax Act, 1956 - 15 marks
  - iii) Goa, Daman & Diu Sales Tax Act, 1964 - 15 marks
-

3) Examination for the degree of Bachelor of Laws (LL.B.) candidates will be examined in the following six papers each carrying 100 marks and of three hours duration.

- Paper I) i) Civil Procedure and Practice (70 marks)  
ii) Arbitration Act (15 marks)  
iii) Indian Limitations Act (15 marks)

- Paper II i) Criminal Procedure and Practice [50 marks]  
ii) Indian Evidence Act [ 50 marks ]

- Paper III) Interpretation of Statutes and Principles of Legislation:  
The course of study for this paper consists of  
a) The General Causes Act, 1897  
b) Interpretation of Statutes

- Paper IV) A student will have to choose any One of the following  
Eight optional subjects;

- i) Tenancy Law and Land Law

The course of study for this paper consists of the following five acts :

- a) The Goa, Daman and Diu Agricultural Tenancy Act, 1964 - 25 marks  
b) The Goa, Daman and Diu Land Revenue Code, 1968 - 20 marks  
c) The Goa, Daman and Diu Buildings [Lease, Rent and Eviction]  
Control Act, 1968 - 40 marks  
d) The Goa, Daman and Diu Mundkar [Protection  
from Eviction] Control Act, 1975] } 15 marks  
e) Mamlatdars' Court Act

- ii) Public International Law and International Organisation.

- iii) Law of Co operation and Public Control of Business.

The course of study for this paper consists of the following four acts :

- a) Maharashtra Co-operative Societies Act, 1960  
as applicable in Goa - -65 marks  
b) Essential Commodities Act, 1955 -15 marks  
c) Monopolies and Restriction Trade practice  
Act, 1969. -20 marks

**iv) Law of Insurance**

The course of study for this paper consists of the following four Acts :

- a) The Insurance Act, 1938
- b) The Life Insurance Corporation Act 1956
- c) The Marine Insurance Act, 1963
- d) The Motor Vehicles Act, 1939 (Chapter VIII) only.

**v) Criminology and Criminal Administration.**

**vi) Private International Law**

**vii) Labour Welfare**

The course of study for this paper consists of the following seven Acts :

- a) Payment of Bonus Act. 1966
- b) The Minimum Wages Act, 1948 Chapters I, III, & VIII, } 50 marks
- c) The Factories Act, 1948 Chapters I, III to VIII. } 50 marks
- d) The Employees' State Insurance Act, 1948
- e) The Employees' Provident Fund Act, 1952
- f) Goa Shop and Establishment Act,
- g) The Trade Union Act, 1926

**viii) Personal Law in Goa**

[ Law relating to Marriage, Divorce, Legitimacy, Succession including procedure under Portuguese Law at applicable in Goa. ]

**Paper V] Legal History, Legal Remedies and Administrative Law.**

The course of study for this paper consists of :

- a] The Specific Relief Act, 1963 [40 marks]
- b] Legal History [10 marks]
- c] Administrative [50 marks]

**Paper VI] Drafting, Pleading, Conveyancing and Professional Ethics.**

The course of study for this paper consists of :

**A. Pleading [45 marks]**

This includes

## 1) Civil

i] Plaint ii] Written Statement iii] Interlocutory Application iv] Original Petition  
v] Affidavit vi] Execution Petition vii] Memorandum of Appeal and Revision  
viii] Petition under Article 226 and 32 of the Constitution of India.

The course will also include motions or Chamber Summons in interlocutory proceedings in particular the following plaints in suits for recovery of money lent, for recovery of possession of immoveable property, for specific performance and injunction for compensation or damages for breach of contract for torts, petitions in matrimonial suits and write petitions, notice of motion or Chamber Summons in Interlocutory proceedings e.g. for injunction, Receiver's attachment before judgement.

## 2) Criminal

i] Complaints ii] Criminal Miscellaneous Petition, iii] Bail Application and  
iv] Memorandum of Appeal and Revision.

## B. Conveyancing (45 marks)

i] Sale Deed ii] Mortgage Deed (English Mortgage) iii] Lease Deed such as  
building leases for terms of years, agreement for leave and licences iv] Partnership  
Deeds and Agency Agreements v] Gift Deed vi] Promissory Note vii] Power of  
Attorney viii] Will.

Practice of Conveyancing and steps to be taken from Contract to completion  
including investigation of title requisitions, searches etc.

## C. Professional Ethics (10 marks)

The course intended to cover the following topics :-

Sources and sanctions of legal ethics-honesty to the client fairness to the opponent-  
respect of courts, industry and hardwork and professional fraternity including  
avoiding competition and unfair practices in obtaining work like touting and  
advertising.

## D. Legal Method :

Includes reading of cases, their analysis and finding of the ratio decidendi, so also  
knowledge of the rule of interpretation of statutes.

## E. Moot Court :

Participation in at least two Moot Courts will be compulsory for all students in  
Third LL.B. Class. The student should keep a record of practical work done in  
preparing a brief and arguing it out. Certificates to every student will be issued  
on Merit by the college.

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Note : Whenever an Act is prescribed for study for a particular paper subject  
the said Act as amended upto the commencement of the respective academic  
year has to be studied by the student.

## **SCHEME OF EXAM-EDUCATION**

### **DEGREE OF BACHELOR OF EDUCATION (B.Ed)**

In Part A of B.Ed. candidates will be examined in following subjects :-

#### **THEORY PART A**

**Paper I Philosophical and Sociological Foundations of Education.**

**Paper II Psychological Foundations of Education**

**Paper III Methods of Instruction and Evaluation**

**Paper IV Guidance and Counselling and a study of one of the following Electives :**

1. Moral and Religious Education
2. Educational Technology
3. Classroom Research
4. Education and National Development
5. Remedial Teaching
6. Environmental Education

**Paper V Any two of the following Special Methods :**

1. English
2. Hindi
3. Marathi
4. Science
5. Mathematics
6. History
7. Geography

#### **PRACTICUM PART B**

1. 20 Practice Teaching Lessons
2. 4 Skills Lessons
3. 1 Project in any one Elective
4. Audio Visual Education and Preparation of Instructional Material
5. Experiments in Psychology
6. Internship or Block Teaching
7. Observation of 25 Lessons

8. Work with the Community  
(for Example : Camp, literacy Programm, Health Programm)
9. Content/proficiency Test
10. Preparation of Annual plan and Test in the Two special methods selected by the candidate.
11. Organisation and participation in Co-curricular activities
12. First Aid

Some of the practice lessons may be included in Block Teaching or Internship  
The following records are required to be maintained :

- i) A record of at least two demonstration lessons one in each of the Special methods attended and observed.
- ii) Note book of observation of lessons of at least twenty five practice Teaching lessons of which ten are in each of the special methods.
- iii) A file containing notes of lessons given and criticism made thereon
- iv) A log book of experiment carried out in Educational Psychology
- v) A Report of the Project work
- vi) A Report of Internship or Block Teaching carried out in the Schools
- vii) A Record of Practical work done in the Electives where specified.

The Principal of the College shall certify that the candidate has done practical work in practicum part B. The Principal of the College will be required to keep a record of all the work done in PRACTICUM PART B.

## EVALUATION

There will be assessment of both Theory Part A and Practicum Part B.  
The Total marks allotted will be as follows :

THEORY	PART-A	500 Marks
PRACTICUM	PART-B	500 Marks
	Total	1000 Marks

## THEORY PART A

Each Paper will carry 100 marks and

There shall be two periodical tests and two essays for each paper during the academic year, it being understood that each of the sections in each paper will be covered by the test and essays.



**PART A WILL COMPRISE THE FOLLOWING :**

Written examination in 5 Papers of 80 marks each and assessment of the year's work in each paper of 20 marks each.

The Final Examination will be three hours duration in each Paper.

IN PART A candidates will be examined in the following Subjects :

<b>Paper I</b>	<b>Philosophical and Sociological Foundation of Education</b>	<b>(80 + 20 marks)</b>
<b>Paper II</b>	<b>Psychological Foundations of Education</b>	<b>(80 + 20 marks)</b>
<b>Paper III</b>	<b>Methods of Instruction and Evaluation</b>	<b>(80 + 20 marks)</b>
<b>Paper IV</b>	<b>Guidance and Counselling and a study of one of the following Electives :</b>	<b>(80 + 20 marks)</b>

1. Moral and Religious Education
2. Educational Technology
3. Classroom Research
4. Education and National Development
5. Remedial Teaching
6. Environmental Education

**Paper V** Any two of the following special methods : **(80 + 20 marks)**

1. English
2. Hindi
3. Marathi
4. Science
5. Mathematics
6. History
7. Geography

## PRACTICUM PART B

20 Practice Teaching Lessons	300 marks
Content/proficiency Test	80 marks
1 Project in the Elective Selected by the candidate	30 marks
Preparation of Instructional Material	20 marks
Experiments in Educational Psychology	10 marks
First Aid	10 marks
Internship or Block Teaching	20 marks
Work with the Community	10 marks
Preparation of annual Plan and Tests in two school subjects	10 marks
Organisation and Participation in Co-Curricular Activities	10 marks
Total	500 marks

The Practical work (as specified in PRACTICUM PART B) done by the candidate during his/her year's training will be evaluated by the Head of the Institution on the strength of the year's work. Candidates who fail to obtain passing marks in practical work will be eligible for Grade C provided that they satisfy the following conditions: a) they give under the supervision of the College authorities ten additional lessons in teaching practice to the satisfaction of the Head of the Institution b) they appear for the Content/Proficiency Test.

## SCHEME OF EXAMINATION FOR MASTER OF EDUCATION

There shall be three compulsory papers and four optional papers as papers IV to VII to be selected from the list of optional papers.

### Compulsory Papers

- Paper I Philosophical and Sociological Foundations of Education
- Paper II Advanced Educational Psychology
- Paper III Research Methodology and Statistics

## **Optional Papers**

1. **Politics of Education and Administration**
2. **Economics of Education, Planning and Finance**
3. **Comparative Education**
4. **History of Education and problems of Indian Education**
5. **Curriculum Construction and Development**
6. **Guidance and Counselling**
7. **Advance Educational Statistics**
8. **Educational Technology and Innovative Practices in Education**
9. **Experimental Education\***
10. **Education and Rural Development**
11. **Child Guidance**
12. **Psychology measurement and Educational Evaluation**
13. **Physical Education**

**\*These papers have Practicals.**

**Dissertation (Optional)**

The dissertation shall carry 200 marks



## **PART-IV**

- 1 Library**
- 2 Directorate of Extra-Mural Studies and Extension Services**
- 3 National Service Scheme**
- 4 Students Welfare and Cultural Activities**
- 5 Konkani Encyclopaedia**
- 6 Centre for Women's Studies**
- 7 Fees Charged**



## GOA UNIVERSITY LIBRARY

Goa University Library started functioning as a University Library from 30th June, 1986. The Library of Centre of Post Graduate Instruction and Research, University of Bombay, which was established in 1965 and having collection of 37678 books and periodicals was incorporated into Goa University and forms the base of Goa University Library. The Library has a total collection of 45694 books covering a number of disciplines under Humanities, Social Sciences and Science covering wide range of subjects like Philosophy, Sociology, Politics, Economics, Education, Languages and literature in English, Hindi, Marathi, Konkani, French and Portuguese, Mathematics, Computer Science, Physics, Chemistry, Geology, Marine Science, Microbiology, Management Studies, Arts, History and Biographies. This year 3406 books worth Rs. 7,00,000/- were added to the Library only from Grants received from U.G.C., under 7th Plan. University Library has a separate journal section, and more than 325 journals are subscribed and some journals are received as gratis. University Library also consist of thesis and several dissertations. More journals are being procured at the University to strengthen research activities of the University. Besides special needs of Historical Research are catered through Professor P.S.S. Pissurlencar Collection, which consists of 4486 books, Journals, documents, photostats copies and microfilms. The Goa University has the following collections of books and journals which further enrich the University's corpus.

1. About 610 books from the heirs of Professor Vithalrao Sukhthankar.
2. About 80 books in Portuguese from Dr. Shridhar Tamba.
3. A collection of about 467 books in Philosophy (of Prof. D'Andrade's Collection) from the Bombay-Philosophical Society, Bombay.
4. About 519 books in Portuguese mainly concerned with Portuguese Literature of the 19th Century from Advocate Paul Mascarenhas in memory of his late father.
5. About 146-149 books in French and Portuguese from Prot. G.V. Kantak.
6. Collection of books/ periodicals, pamphlets etc , 721 donated by Shri. Carmo Azavedo on Goa and by Goan Authors.
7. About 324 books mostly on Ayurveda from Dr. Raghuvir P. Sinary.
8. A collection of books numbering 1676 mostly Marathi from Shri. Wamanrao Kundaikar.
9. A collection of books numbering 289 mostly Portuguese from Shri. Xavier De Monte Furtado.
10. A collection of 125 books mostly Portuguese from the Xavier Centre for Historical Research, Porvorim.
11. A collection of books on Canadian Literature (57) books received from Shastri Indo Canadian Institute, N.D.
12. Shri N.R. Kelkar from Mapusa has donated 44 books mostly in Marathi.

13. Shri. W.S. Gharse's gift of books (138) belonging to Dr. A.K. Priolkar.
14. A collection of 25 books and more than 100 journals & Offprints of Marine Science of Dr. H.N. Siddiquie.
15. French Embassy gift of 90 books of French Literature.

Besides USIS Library, Alliance Francaise and British Council Library donate books regularly to the University Library. This includes 170 books specially on Latin American Studies in the USIS collection.

**Working Days :** The library is kept open for all the days except Sundays and public holidays throughout the year. Besides the normal working hours of the Library, the reading rooms are kept open for extended hours so as to facilitate use by readers. They were also kept open on Sundays and public holidays during the examination days.

The normal timings of the Library are 9-00 a.m. to 6-30 p.m. on week days and 10-00 a.m. to 5-45 p.m. on 1st, 3rd and 5th Saturdays.

**Readers and Use of Library :**

University has 705 number of registered readers including Staff members and several casual visitors. Inter Library exchange of books and journals is encouraged and the journals are regularly exchanged with N.I.O. Library.

The teachers and students of the local colleges are encouraged to use the University Library and the reference and borrowing facility is extended to them. Ph.D. students are issued ten books at a time; as a special facility to boost research activity in the University.

**Other Materials :**

Several maps are also collected in the Goa University Library.

**Bibliographical and Documentation Service :**

Bibliographies of reading materials available in the Library were compiled and supplied on demand to staff members on special subject/s. List of latest addition is circulated in the department. Recently exhaustive list of periodical holdings of the Library has been published. Reprographic facility is also available at nominal rates.

**University Bindery :**

Bindery unit has been opened to cater to the needs of day to day mending/binding of books and journals.

**Classification and Cataloguing :**

Books are classified according to Dewey Decimal Classification and subject and author (Main) catalogues are maintained. There are separate catalogues for collections.

**Computer Terminals for Library :**

Once the application of computers in the Library operations is completed readers will have easy and quick access to documents in the Library.



## DIRECTORATE OF EXTRA - MURAL STUDIES AND EXTENSION SERVICES

(1) **Co-ordinator** : Shri Shyam Bhohe.

(2) **Aims and Objectives** : The Directorate was established on 20th June, 1986 as per Article 5 (5) of the Goa University Act. The objects of the Directorate are as follows :

- (a) To impart instruction to those who could not undergo formal education, but whose desire to be educated has remained intact;
- (b) To interact at all level of education - Primary, Secondary and Higher Secondary non-formal education of adults, particulary women, farmers, workers and others whose understanding, skills, status, etc., need to be uplifted :
- (c) To participate in rural development activities and to undertake action oriented researches to solve the local problems;
- (d) To make the common man aware of the impact of science and technology on daily life and to promote a scientific outlook and proper utilization of the products of science and technology;
- (e) To produce reading material and make it available to the people at low prices;
- (f) To collaborate with local voluntary organisations, industries, research institutions etc. to promote the objectives of the extra-mural studies and extension services;
- (g) To make people aware of their past and present, history and culture; and
- (h) To make people aware of their civil and social responsibilities and obligations as well as their rights.

The programmes of the Directorate are conducted in English, Konkani, and Marathi. The panel of speakers and experts includes the academics of the University and scholars from other educational and research institutions. Besides, the services of the learned men from various walks of life are also taken advantage of.

## **NATIONAL SERVICE SCHEME**

### **Programme Co-ordinator : Prof. G. K. Kelkar**

#### **A) INTRODUCTION :**

The National Service Scheme was started by Government of India, Ministry of Education and Culture in collaboration with State Government in 1969 in 37 selected Universities. Our University has been participating in the Scheme right from its inception.

At present 13 Colleges affiliated to the University are implementing this Scheme with the strength of 2520.

#### **B) AIMS AND OBJECTIVES :**

The objectives of the National Service Scheme are to arouse in a student Social conscience and to provide him/her with opportunity

1. to work with/among people,
2. to engage in creative and constructive Social action,
3. to enhance his/her Knowledge of himself/herself and the Community.
4. to put his/her scholarship to practical use in mitigation of at least some of the Community problems,
5. to gain skill in the exercise of democratic leadership,
6. to bridge the gulf between the educated and the uneducated masses,
7. to promote the will to serve the weaker section of the Community.

The educational goal of the NSS implies that besides gaining understanding of concepts like community, Social structure, Power conflict etc. occurring in real life situation, student should acquire competence in the field of Programme planning, shouldering the responsibilities, participation in cooperative task and promotional work in the community.

The service goal of the NSS also calls forth educational approach in solving community problems. Its purpose is to help the Community to recognise its needs and to assist it in the mobilisation of resources to meet these needs.

The educational approach implies adoption of the following six steps by a college NSS Unit.

1. Selection of field work centres-a village, a slum, a primary School, a Welfare institution or a hospital etc., for NSS work on a continuing basis for a period of 3 to 5 years.
2. Ascertaining needs, interests and talents of the enlisted NSS volunteers.
3. Gathering knowledge about the field work centres and prospective beneficiaries or service programmes.

## **KONKANI ENCYCLOPAEDIA**

**Chief Editor : Dr. M. L. Sardesai.**

**Executive Editor : Dr. T. D. Halarnakar**

Goa University has undertaken a project for preparation of Konkani Encyclopaedia to cater to the needs of the Scholars as well as of the common men knowing Konkani.

Encyclopaedic information will be classified into various subjects. The Encyclopaedia will not only contain entries regarding general knowledge covering the whole world, but, special emphasis will be laid on information regarding the Konkani speaking territories, their people, history, geography, art and culture, customs and manners, etc.

The Encyclopaedia will be three volume work each volume of roughly 1000 pages. The Encyclopaedia will take inspiration from Encyclopaedias in English, French, Portuguese, Hindi and Marathi. Articles on various items will be contributed by experts in their respective fields. Special efforts will be made to get original articles on local topics, themes and issues.

## **CENTRE FOR WOMEN'S STUDIES**

The Centre offers 2 Junior Research Fellowships/Research Associateships for candidates who register for Ph.D. or take up a research project on research topics relating to Womens studies.

## FEES CHARGED

Fees to be charged during the academic year 1990-91 for the under-graduate and post-graduate courses of study in the University and fees prescribed for registration as a post graduate student for a Master's Degree course, for a medical Degree course or Diploma course or Certificate Course and for Doctor of Philosophy (under Section 24 (1) of Goa University Act, 1984 are as under :

Sr.No.	Name of the Course	Tuition fee per annum Rs. P.
1.	<b>Faculty of Arts &amp; Humanities</b>	
	B.A. (First, Second & Third Year	400.00
	M.A. (including Mathematics)	500.00
	Ph.D.( -do- )	500.00
2.	<b>Faculty of Pure Science and Applied Science</b>	
	B.Sc.(First, Second & Third year)	400.00
	Laboratory Fee per year	130.00
	M.Sc. (other than Mathematics)	1000.00
	M.C.A. (Three year Course)	
	Ph.D.(other than Mathematics)	1000.00
	PDCA (Three semester Course)	1750.00
3.	<b>Faculty of Commerce &amp; Business Admn.</b>	
	B.Com. (First, Second & Third year)	400 00
	M.Com	500.00
4.	<b>Faculty of Law</b>	
	LLB (First, Second & Third year)	400.00
	LLM	500.00
5.	<b>Faculty of Medicine</b>	
	MBBS (First, Second & Third year)	525.00
	Medical Post-Graduate Degree/Diploma	1000.00
6.	<b>Dentistry</b>	
	BDS. (First, Second, Third & Fourth year)	350.00

4. Identifying possible action targets based on the needs of the community and talents of the NSS volunteers and ranking them by priority.
5. Locating and pooling community resources for completing the targets.
6. Taking steps to initiate planned action programme with the concurrence of the community.

Both the educational goal and the service goal of the NSS should be kept in mind while planning service activities by the students under the regular NSS programmes. A student cannot be looked upon merely as a means to be utilised in meeting community needs. So also the community should not suffer while accomplishing the educational goals of the scheme.

The programme, therefore, needs planning and implementation to realise both the goals and measures and to avoid conflict between them. The service activities under the NSS help the students in gaining knowledge about himself and the community through the organisation of community service projects.

### **C) MOTTO OF NSS :**

The Motto of NSS "Not Me But You" is a terse expression. On face of it appears to be very simple and short, but behind it lies a lot of meaning. It is very deep and suggestive and is keeping with the spirit of NSS Services for others.

The expression stands for two things :

- a) Forgetting and surrendering the self, and
- b) Rendering selfless service to others.

The word 'Not' before 'Me' is to reduce the self to nothing and the word 'But' before 'You' can be expanded as follows :

"I do not live for me but for You".

"The world is not only for me but to you also."

## **STUDENTS WELFARE AND CULTURAL ACTIVITIES**

The students activities of Goa University are looked after by two Directorate, Directorate of Sports looking after the sports exclusively and Directorate of Students Welfare and Cultural Affairs managing other aspects of the Students activities.

The Directorate of Students Welfare and Cultural Affairs organises the election of the students representatives from various colleges affiliated to Goa University through the authorities of these Colleges and forms a University Students Council in accordance with the statute governing these bodies, various inter-collegiate competitions are organised by the Directorates and selections are conducted to send up students teams at various Inter University competitions and Youth Festivals. Organisations of various Training Programmes and workshops for students is also a part of the activities looked after by this Directorate.

The University intends to develop a full fledged sports complex consisting of a stadium for indoor games and open grounds for other tournaments.

7.	<b>Faculty of Engineering</b>	
	<b>(A) Engineering</b>	
	B.E. (First, Second, Third & Fourth year)	360.00
	M.E.	500.00
	<b>(B) Architecture</b>	
	B.Arch. (First, Second, Third, Fourth & Fifth year)	360.00
8.	<b>Education</b>	
	B.Ed	400.00
	M.Ed	500.00
9.	<b>Fine Art</b>	
	(Five year Course)	350.00
10.	<b>Home Science</b>	
	(Three year Course)	400.00
11.	<b>Pharmacy</b>	
	B.Pharm (Four year Course)	360.00
12.	<b>Ph. D. in Marine Science,</b>	
	Computer Science, Medicine,	
	Dental Science, Pharmacy,	
	Engineering & Fine Arts	1000.00
13.	<b>Ph.D. in Education</b>	
	Commerce, Law	500.00

The rates of fees other than tuition fees, such as Library fee, Gymkhana fee, Students Aid, Annual Social Gathering fee. College Magazine fee, etc., may be Rs. 100/-per student per year.

The fee prescribed for registration as a Post-Graduate student for a Master's degree course whether by paper or by Research and for a Medical Post-Graduate, Degree/ Diploma Course or Certificate Course is Rs. 40/-The fee prescribed for registration as a Post-Graduate student for the Ph.D. Degree Course is Rs. 50/-

As per the Executive Council resolution an amount of Rs. 70/-as University bus charges (@ Rs. 7/-per month per student) is to be collected from the students registered under the University Teaching Departments from the academic year 1990-91.

## ANNEXURE I

Goa University Ordinances relating to the M.A , M.Sc., M.Com degree examination. Registration as a post-graduate student shall be a condition precedent to the commencement of post-graduate study.

- 0.21.1 (i) A candidate for being eligible for admission to the course leading to the degree of Master of Arts shall have passed the examination for a degree of Bachelor of Arts (3-year integrated course or old course) of this University or an examination of any other University recognised as equivalent thereto.
- (ii) A candidate for being eligible for admission to the Master of Science degree course must have passed : B.Sc. (3-year integrated course or old course) degree examination of this University with at least seven units (i.e.the minimum required for majoring in a subject) in that subject which he wants to offer for M.Sc. degree course.

### OR

- The examination of another University recognised as equivalent thereto.
- (iii) A candidate for being eligible for admission to the course leading to the degree of Master of Commerce shall have passed the examination for a degree of Bachelor of Commerce (3-year integrated course or old course) of this university, or an examination of any other University recognised as equivalent thereto.

0.21.2 These ordinances are applicable to the students applying for admission in the following departments :

**(A) Faculty of Arts :**

Departments of Economics Political Science, Sociology History Philosophy, English, Marathi, Konkani, Hindi, French and Portuguese.

**(B) Faculty of Pure Science :**

Departments of Physics, Chemistry, Mathematics, Geology and Micro-biology.

**(C) Faculty of Commerce :**

Commerce subject only.

0.21 3 The procedure and condition for admission to the M.A., M.Sc., M.Com. programme, reservation of seats in each department, rules regarding merit list, rules of change of faculty/subject, rules regarding registration and payment of fees are given in part I of the Hand book.

0.21.4 The examination for Master's degree may be taken by

- (i) Papers or  
(ii) Partly by papers and partly by dissertation.



The duration of the course for M.A., M.Sc., M.Com. is two years divided into two parts, namely, Part I & Part II.

0.21.5 The instructional scheme for M.A., M.Sc., M.Com. degrees is based on a system of integrated units called courses.

There are two types of courses :

(I) Core Courses (II) Elective Courses.

The Core courses are compulsory and Elective Courses are optional in a specific programme for Master's degree in the subjects mentioned in 0.21.2,

A candidate has to pass in each of the eight Core Courses and eight Elective Courses separately. A maximum of two Elective Courses can be from outside the department

0.21.6 A Core Course consists of 56 hours of instruction, hereafter called Contact Hours (CH), and an Elective Course consists of 36 Contact Hours. Six credits are assigned to each Core Course and four credits to each Elective Course. A minimum of 80 credits have to be obtained by a candidate. A Board of Studies may prescribe additional credits if the specific nature of the subject so demands. Such credits shall not exceed eight. The scheme envisages inter-disciplinary work, and consequently allows students to offer courses from other departments and faculties.

0.21.7 A Course offered by one department may be recognised as an equivalent course by another department.

0.21.8 A student may be allowed to write a dissertation for eight credits in lieu of two Elective Courses. The scheme of submitting dissertation is given in 0.21.27 to 0.21.42.

0.21.9 The teaching of both Core and Elective courses will be started and completed throughout the academic year as per the instructional time-table to be drawn by each department/related departments. The detailed departmental time-table will be prepared at the beginning of the academic year showing the flow of courses.

0.21.10 There shall be three lectures and one tutorial (or 4 lectures) per course per week in those subjects in which laboratory work is not involved. In the case of subjects involving laboratory work/field work, the number of lectures and practicals will be so adjusted that the spirit of 0.21.6 is maintained. Three hours of practical work in a laboratory for Core or Elective courses shall be treated as equivalent to one hour of lecture work in class-room.

Courses which combine both theoretical and practical content shall have the same credits as given in 0.21.6. Normally one teacher will teach an entire course unless the course has been prepared by two or more teachers to meet inter-disciplinary requirements.

0.21.11 There shall be a Departmental Council for each department consisting of all the teachers in the department. The Head of Department shall be the Chairman of the Departmental Council, which will normally meet once in a month to discuss the teaching programme in the department. Each department shall have an office equipped with adequate staff to note and maintain the minutes and records of the meetings of Departmental Council and to carry out other office work.

0.21.12 The teachers of department shall prepare/draft courses giving details of syllabus and course material, and place them before Departmental Council. These courses will then be placed before Board of Studies in the subject for approval.

Inter-disciplinary courses proposed by different departments shall be discussed at joint meetings of the concerned departments, and when approved, they will be placed before the Board of Studies of the concerned subjects.

**0.21.13 Evaluation :**

There will be both internal element and external element in the evaluation of performance of candidates, shown in the following charts :

(a) Scheme for the subjects having no Laboratory work.

(i) Core Courses (8)

Nature	Marks	How to conduct	Duration	No. of questions
(i) Midpoint Test	20	Internal	90 minutes	2-3
(ii) Assignment Test	20	Internal	To be decided by the Department	-
(iii) Final Comprehensive Test	60	External	150 minutes	4-5

(ii) Elective Courses (8-10)

Nature	Marks	How to conduct	Duration	No. of questions
(i) Midpoint Test	20	Internal	60 minutes	2
(ii) Final Comprehensive Examination	80	Internal	120 minutes	3-4

(b) Scheme for Physics

(i) The Syllabus of Physics consists of the following pattern.

Year	Theory Courses	Practical Courses	Total
<b>Part I</b>			
Core Courses	3	1	4
Elective Courses	3	1	4
<b>Part II</b>			
Core Courses	3	1	4
Elective Courses	3	1	4

(ii) Each Course (Core or Elective) shall be evaluated for 100 marks. In case of Practical (Core or Elective) course the 100 marks shall have the following subdivision :

Nature	Marks
(a) Experiments (2)	60
(b) Viva-Voce Examination	20
(c) Journal	20
Total	100

(iii) The practical examination shall be for 12 hours. During the Viva-Voce examination the following qualities of a student shall be tested.

(a) Understanding the experiment (b) The underlying theory (c) The construction of instruments (d) Circuit & design. The practical (Core) Course for 100 marks shall be evaluated externally (i.e. jointly by internal and external examiners)

The practical (Electric) course for 100 marks shall be evaluated internally. The scheme of evaluation of theory papers (both in Part I and Part II years) shall be the same as given in Table (a) above.

(C) Scheme for Geology, Micrology & Chemistry

(i) Core Courses (8)

Nature	Marks	How to conduct	Duration	No. of questions
(i) Final Comprehensive Test				
Microbiology	75	Externally	150 minutes	4-5
Geology	60	"		"
Chemistry	60	"		"
(ii) Practical Test				
Microbiology	25	Externally	3-6 hours	—
Geology	40	"		
Chemistry	10	"	6-7	

(ii) Elective Course (8 - 10)

Nature	Marks	How to conduct	Duration	No. of questions
(i) Final Comprehensive Test				
Microbiology	75	Internally	120 minutes	3-4
Geology	60	"		
Chemistry	60	"		
(ii) Practical Test				
Microbiology	25	Internally	3-6 hours	—
Geology	40	"		
Chemistry	40	"		

Students applying for admission to chemistry department shall be admitted to only one of the three specializations at M Sc. (Part I)

- 0.21.14 The work 'External' in the above stated tables means that the examination is conducted by a Board of Examiners appointed by the University consisting of 50% internal and 50% external examiners. The panel of external examiners shall be prepared by the Board of Studies in the subject and to be approved by the Academic Council.
- 0.21.15 Each Departmental Council of a subject shall decide the nature of assignment test with details and notify it to the students at the beginning of academic year.
- 0.21.16 In the Table the number of questions to be set in a test are given. These are compulsory questions to be set in any test paper. Internal options may be given in some of the questions. The questions set in a test shall as far as possible be spread over all broad topics in the syllabus. A slight deviation in setting number of questions in all tests may be done by departmental council to incorporate special mode of questions.

- 0.21.17 In science subjects having practicals the marks assigned to practicals are given. Out of those marks some marks shall be given for journals/keeping records/oral examination during practicals etc., The number of marks (if any) assigned for such factors shall be decided by the Department Council and made known to the students at the beginning of academic year.
- 0.21.18 In case a course (core or elective) in science subjects does not include laboratory/field work and if it is theoretical, then for such a course the Scheme of Examination shall be the same as given in Table (a).
- 0.21.19 In case a Core Course in science subjects is based only on practicals having no theory component), it shall be examined for 100 marks externally. The duration of the practical examination shall be decided by the Departmental Council of that subject.
- 0.21.20 The internal assessment shall ordinarily be done by teacher/teachers who teach the course. Marks should be assigned to each internal test/assignment done by a student, and the same shall be communicated to him. In case a student desires to review the answer paper the concerned teacher shall reevaluate the same. However if a student is still not satisfied, he is permitted to apply to the Grievance Committee through the Head of Department.  
The marks of the internal examination shall be recorded in office of the Department and placed before the Departmental Council for its approval. Afterwards, the record of marks shall be communicated to the Registrar's office by the Head of Department.
- 0.21.21 The application of a student who wishes to appear for the external examination in Core Courses shall be forwarded by head of Department irrespective of his performance in the internal assessment or Elective Courses.
- 0.21.22 Before the midpoint tests in Core or Elective courses are held sufficient portion of syllabus shall be covered by respective teachers. The questions set for the test shall broadly cover the entire part of the completed syllabus.
- 0.21.23 The result of External Examination will be declared formally within a period of one month from the date of the examination, while the result of Elective Courses will be declared within a period of one week after the examination. No fractional marks will be awarded in any course/examination. A candidate has to pass internal and external components of each course separately.
- 0.21.24 A Student who appears for M.A., M.Sc., M.Com. degree examinations and gives, in writing within one week of the close of the examination a declaration to the University through the head of his Department to the effect that his result of that degree be considered null and void if he does not obtain a) the award of at least (i) B grade or (ii) B+grade on the aggregate at the Master's degree examinations

will be declared as failed at the degree examination so as to enable him to improve his performance at the subsequent examination.

- 0.21.25 The number of elective courses which a department can offer to teach in a particular year shall be decided by Departmental Council, and announced well before the admission of students to the department. Every post-graduate department shall teach 4 Core and 4 Elective courses in Part I and 4 Core and 4 elective courses in Part II. A student after attending Part I course shall be admitted to Part II course irrespective of his result in Part I examination. However, a student shall be permitted to appear for the final Part II examination to be held in April/May only if he has passed at least 4 Core Courses and 4 Elective Courses.
- 0.21.26 The final examination in each Core Courses is to examination. Every department shall opt for one at the three flow charts for floating the courses in every academic year. They are given below. Depending upon the opted flow chart each department shall inform the dates of the completion of the courses to the Controller of Examination who will fix the time-table of the external examination in consultation with Heads of Departments. Examination time-table for repeat students shall also be prepared by the Controller of Examinations in consultation with the Head of Department.

WEEKS		I - CREDITS FLOW CHART -						FIRST YEAR
1	JULI	CORE-1						1
2	II		OPT-1/OPT-2					2
3	III							3
4	IV							4
5	AUG I							5
6	II		MID-EV	CORE-2				6
7	III							7
8	IV	MID-EV			OPT-3/OPT-4			8
9	SEP I		EXAM					9
10	II							10
11	III							11
12	IV				MID-EV			12
13	OCT I			MID-EV				13
14	II	EXAM				CORE-3		14
15	NOV III							15
16	IV				EXAM		OPT-5/OPT-6	16
17	DEC I							17
18	II							18
19	III			EXAM				19
20	JAN I						MID-EV	20
21	II					MID-EV		21
22	III						CORE-4	22
23	IV							23
24	FEB I					EXAM		24
25	II							25
26	III						MID-EV	26
27	IV					EXAM		27
28	MAR I						MID-EV	28
29	II							29
30	III						EXAM	30
31	IV							31
32	APR I							32
33	II							33
34	III						EXAM	34
35	IV							35
36	MAY I							36

RE EXAMINATIONS IF REQUIRED





**M. A ,M.Sc.,M.Com. (Teaching Scheme)**

**FLOW CHART II**

**Part I**

	C-1	C-2	E-1	E-2
July				
August				
Sept			EX	EX
Oct	DIWALI VACATION			
			C-3	C-4
Nov.				
Dec.	EX	EX		
	X'MAS VACATION			
	E-3	E-4		
Jan				
Feb.				
Mar.				
April	EXAMINATION-15th April			

**Repeat examination before 20th April**

**(For Students who Fail in Examinations)**

In April, repeat examination for Core Courses 1&2 and repeat examination of Elective Courses 1&2 may be conducted.

**Part II**

	C-5	C-6	E-5	E-5
July				
August				
Sept			EX	EX
Oct.	DIWALI VACATION			
			C-7	C-8
Nov.				
Dec.	EX	EX		
	X'MAS VACATION			
	E-7	E-8		
Jan.				
Feb.				
Mar.				
April	EXAMINATION			

**Repeat Examinations before 20th April**

Repeat Examination for Core Courses 3 and 4 and for Elective Courses 3 & 4 shall be held in the month of December of the Part II year.

Repeat Examination for Core Courses 5&6, and for Elective Courses 5&6 shall be conducted in April. Students failing in Core Courses 7&8 and in Elective Courses 7&8 shall have repeat examinations only in the month of the subsequent year

**M.A , M.Sc M.Com. (Teaching Scheme)**

**Flow Chart III**

**Part I**

	C-1	C-2	C-3	C-4
July				
August				
Sept.				
Oct	DIWALI VACATION			
Nov.				
Dec.	EX	EX	EX	EX
	X'MAS VACATION			
	E-1	E-2	E-3	E-4
Jan.				
Feb.				
Mar.				
April	EXAMINATION			

**(For Students Who Fail In Examination)**

Repeat examination shall be conducted for Core Course 1,2,3, and 4 in April.

**Part II**

	C-5	C-6	C-7	C-8
July				
August				
Sept.				
Oct.	DIWALI VACATION			
Nov.				
Dec.	EX	EX	EX	EX
	X'MAS VACATION			
	E-5	E-6	E-7	E-8
Jan.				
Feb.				
Mar				
April	EXAMINATION			

In addition to the regular examination, repeat examinations for Elective Courses 1,2,3,4 may be conducted in the month of December of Part II.

In addition to regular examinations, repeat examinations for Core Courses 5,6,7 & 8 may be conducted in the month of April of Part II. However, students failing in Elective Courses 5,6,7 and 8 shall have repeat examination in the month of April in the subsequent year.

0.21.27 Students registered for M.A., M.Sc., M.Com degrees may opt for a dissertation in lieu of two Elective courses of 100 marks each. A student shall be permitted to write a dissertation at the Part II level only.

0.21.28 The Departmental Council shall decide if the option of writing dissertation be introduced or not in a particular year after taking into account the number of students enrolled for a subject laboratory/practicals/library and other facilities available in the Department/University and the availability of faculty for entrusting the responsibility of helping/guiding students in completing their dissertation of a desired standard.

0.21.29 A teacher may be permitted to enroll not more than three students in a subject for writing dissertation. The work done by a teacher in guiding students may be treated as the regular departmental teaching work and this work shall be treated as equivalent to two hours in a week.

0.21.30 The policy regarding the total number of students to be allowed to opt for writing dissertation in a particular academic year, the discipline, area and topic of dissertation will be decided by the Departmental Council at the beginning of each year. These details shall be communicated to the students well in advance.

0.21.31 The dissertation will carry 200 marks. The dissertation shall be written in English except in language subjects where the candidate shall write the same in the concerned language. The dissertation shall include a comprehensive work on the topic/area of study expected from a student at the Master's degree level. The dissertation should include an introduction, main contents of the topic, reference notes conclusion arrived at and complete bibliography.

0.21.32 The guiding teacher shall in the prescribed proforma, certify that the dissertation is a genuine work of the candidate completed under his supervision.

0.21.33 The topic for dissertation approved by the Departmental Council of a subject shall be such that it shall be equivalent to the academic contents of two Elective Courses.

0.21.34 The submission of dissertation needs a special mode of evaluation. Students opting for dissertation shall pay in addition to the usual examination fees, Rs. 200/- as dissertation fee.

- 0.21.35 The performance of a student opting for writing a dissertation shall be evaluated in the following manner :
- 1) The dissertation shall be evaluated by the guiding teacher of the candidate. A second external examiner shall be appointed by the University to evaluate the dissertation. The external examiner shall be appointed by Vice-Chancellor from among the panel of examiners approved by the Board of Studies. The Board of Studies shall prepare the list of external examiners and revise the list from time to time. The external examiner for a particular dissertation. Shall be appointed only after the submission of the dissertation. The internal and external examiners shall evaluate the dissertation out of 200 marks each. The average performance will be obtained by taking the average of the marks assigned by the two examiners.
- 0.21.36 The departments shall give a topic of dissertation to a student in the first week of July of the Part II year and the student shall submit the dissertation before February 15th of that year. In general no student shall be allowed to submit the dissertation after the due date. However, for very special reasons the date of submission can be extended by a period of 2 weeks by the Head of Department. In case a student fails to submit the dissertation before the prescribed date, he shall be permitted to attend regular lectures for the two Elective Courses in the subsequent year after paying full fees for the Part II of the degree course.
- 0.21.37 Every student shall submit four copies of the dissertation to the University in the prescribed proforma.
- 0.21.38 The dissertation shall be treated as a separate head of passing. To pass under this head a student needs to score a minimum of 80 marks. A student failing under this head of passing may be allowed to re-submit the dissertation after introducing suitable modification under the guidance of a teacher within a period of one year from the declaration of the first result.
- Only one re-submission of dissertation is allowed. A student then shall not be permitted to avail himself of the option of dissertation.
- 0.21.39 Four copies of dissertation are to be submitted in accordance with the following specifications : Size of paper : Quarto approximately 10 inches by 8 inches except for drawing graphs and maps in which no restriction is placed. A margin of  $1\frac{1}{2}$ " to be kept on the left hand side and bound in a standardised form. The front cover should contain the title of the dissertation, the degree, date and name of the author. The dissertation should be typed in a double space and only on one side of the paper.
- 0.21.40 External Examiner evaluating dissertation at the Master's degree level shall receive Rs. 100/- as honorarium

## GRADING

- 0.21.41 (i) A candidate has to secure at least 40% of the marks assigned to a particular course examination to be declared successful.

The marks obtained by a student at the end of the course will be converted into the following weighted average of marks. This number may be called performance Index. (P.I.). The formula for calculating the index is as follows :

$$P.I. = \frac{1}{80} (16 \times \text{total marks in core courses}) + (4 \times \text{total marks in elective courses})$$

- (ii) In case of science subjects (having practicals) a candidate must get 40% marks in Theory and Practical Examination separately to pass in course. The P.I. in respect of the subjects Physics, Geology, Microbiology and Chemistry shall be calculated by following the formula given in 0.21.41 (i).

- (iii) Using P.I. the following grades may be awarded.

P.I. 71% and above	Grade 0 (outstanding)	
P.I. 65% to 70%	Grade A+	Sub. National Systems Unit,
P.I. 61% to 64%	Grade A	National Institute of Educational
P.I. 55% to 60%	Grade B+	Planning and Administration
P.I. 50% to 54%	Grade B	17-B, S. Connaught Marg, New Delhi-11001.
P.I. 40% to 49%	Grade C	DOC. No. .... D-5330 .....
P.I. Below 40%	Grade F (Fail)	Date..... 4-7-96 .....

- (iv) A Student will be awarded a grade as stated in the table above. The performance index of a student will be calculated on the basis of his performance in 8 core and 8 elective courses. In case a candidate offers two additional elective courses (the total number of courses being 10) for additional credits, the performance in the two additional elective courses shall not be counted in awarding the grade. However, such a candidate will have to obtain the minimum of 40% marks in each of the two additional elected to qualify for passing in the final examination.

## **GRIEVANCE COMMITTEE**

0 21.42A Grievance Committee consisting of five teachers shall be formed at the commencement of every academic year. The five teachers shall be selected by lots. They shall not be eligible to sit on it the following year. However they could sit on it in third year. Deans shall be excluded from the teachers group when lots are drawn for constituting the Grievance Committee. The quorum of Grievance Committee, whenever it meets and takes decisions, shall be three. The Chairman of the Grievance Committee to be nominated by the Vice-Chancellor shall be one of its members

0.21.43The task of the Grievance Committee shall be mainly to judge and decide on the issues of undermarking/overmarking of scripts-answer of students. However, the Grievance Committee shall also consider other problems related to examinations.

0 21.44Any grievance to be submitted to the Grievance Committee by a student should first be presented to the Head of Department to which the subject of the answer-script belongs. The Head, with the assistance of the Departmental Council and the teacher against whom the grievance is directed, will study the nature and soundness of the grievance and will endeavour to dissolve it at that level, if, notwithstanding this endeavour, the grievance is pressed by the concerned student, it will be referred to the Grievance Committee.

0.21.45If the Grievance Committee finds that there is a prima facie case it may refer the answer-script to an expert from within the University or outside the University for revaluation. The result of this revaluation will be final.

## Uniform Nomenclature

0 21.46 The type of courses at the post-graduate level (Core and Elective) in each subject shall be numbered in the following manner. Each subject has 8 core Courses. The numbering of 8 Physics Core Courses, for example, shall be PC-1, PC-2, PC-3, PC-4, PC-5, PC-6, PC-7, PC-8. The Elective Courses in Physics shall be numbered as PE-1, PE-2, PE-3, PE-4, PE-5, PE-6, PE-7, PE-8. The following prefix letters are fixed for each subject.

(a) M : Mathematics, G : Geology

MI : Micro-biology P : Physics BI : Bio-Chemistry

CA : Chemistry Analytical, CI : Chemistry Inorganic,

CO : Chemistry Organic, CP : Chemistry Physical.

(b) E : Economics, PS : Political Science, H : History

PH : Philosophy, S : Sociology, MA : Marathi.

EN : English, K : Konkani, HI : Hindi, F : French

PO : Portuguese, L : Latin American Studies.

(c) CM : Commerce.

The restructured syllabus of each subject shall incorporate the above stated uniform nomenclature.

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