



**GOVERNMENT OF INDIA
NATIONAL EMPLOYMENT SERVICE**

AREA SKILL SURVEY

KANPUR



**Directorate General of Employment
And Training
Ministry of Labour And Rehabilitation**

Sub. National Systems Unit,
National Institute of Educational
Planning and Administration
17-B, SriAurobindo Marg, New Delhi-110016
DOC. No.....D-732
Date.....5/1/82

D-732

AREA SKILL SURVEY—KANPUR
DISTRICT ADVISORY GROUP MEMBERS
AND
STAFF

Advisory Group

- Chairman
1. District Magistrate,
Kanpur

Members

 2. Regional Employment Officer,
Kanpur
 3. Director of Industries,
U.P., Kanpur
 4. Labour Commissioner, U.P.,
Kanpur
 5. Director, Technical Education, U.P.,
Kanpur
 6. District Inspector of Schools,
Kanpur
 7. District Basic Education Officer,
Kanpur
 8. Secretary, Northern India Employers' Association,
Civil Lines, Kanpur
 9. Secretary, Merchants Chamber of Commerce,
U.P., Kanpur
 10. Secretary, U.P., Chambers of Commerce, Civil Lines,
Kanpur
 11. Additional Director General of Ordnance Factories,
Kanpur
 12. Chief Municipal Officer, Municipal Committee,
Kanpur
 13. Additional District Magistrate, (Planning),
Kanpur
 14. Senior Supdt. of Police,
Kanpur
 15. President, Indian National Trade Union Congress,
Kanpur
 16. General Secretary, Hindu Mazdoor Sabha,
Kidwai Nagar,
Kanpur
 17. Director, Indian Explosives,
Kanpur
 18. Director, Indian Institute of Technology,
Kanpur
 19. Vice Chancellor, Kanpur University,
Kanpur
 20. Governing Director, J.K. Group of Industries,
Kanpur
 21. Governing Director, Jaipuria Group of Industries,
Kanpur
 22. Director, Agricultural Science Institute,
Kanpur
 23. Governing Director, Singh Engineering Works,
Kanpur
 24. Chairman, British India Corporation,
Kanpur

Secretary

 25. Assistant Director of Employment Exchanges,
Area skill Survey,
Kanpur

Survey Team

1. Shri S.M. Sinha,
Assistant Director of Employment Exchanges
2. Shri J.M. Tripathi,
Assistant Employment Officer
3. Shri Surinder Singh,
Assistant Employment Officer
4. Shri S.D.L. Srivastava
Senior Investigator
5. Shri A.N. Mehrotra,
Senior Investigator
6. Shri Dambar Singh,
Junior Investigator
7. Shri N.P. Verma,
Junior Investigator
8. Shri C.K. Tiwari,
Junior Computer
9. Shri Om Prakash,
Junior Computer
10. Shri Yasin Ali,
Stenographer

Survey Team for Qualitative Skill Surv.

1. K.A.V. Pillai,
Technical Officer
2. Shri A.K. Chawdhary,
Surveyor

Headquarter. (D.G.E. & T)

1. Shri J.C. Gupta,
Deputy Director of Employment Exchanges
2. Shri V.K. Rajagopalan,
Deputy Director of Employment Exchanges
3. Shri Hari Krishan,
Assistant Director of Employment Exchanges
4. Shri D.P. Vaid,
Senior Investigator,
5. Shri Yogesh Raizaada,
Senior Investigator
6. Shri P. Lalwani,
Personal Assistant
7. Shri H.S. Madan,
Stenographer

FOREWORD

The main objective of Area Skill Survey is to make an assessment of the current availability of skills and their requirements in the foreseeable future at area level. Besides filling up informational gaps, these surveys have thrown for the first time valuable information regarding avenues of self-employment opportunities that may be generated in the rural areas in the wake of modernisation of agriculture, expanding needs for maintenance and other services. The Expert Sub-Group of the National Employment Service representing State Directors drawn from each of the five zones, Planning Commission and Central Statistical Organisation which, evaluated these surveys besides suggesting certain improvements in the existing methodology and further refinement of techniques, found that the results of the study were of immense value in initiating measures for tackling problem of unemployment at the grass-root level, formulating schemes for expansion of self-employment, Career advice, Training and apprenticeship, Job development, Employment Market Information Programme, etc.

2. The surveys in the case of three areas of Poona, Kanpur and Visakhapatnam were conducted according to the revised and improved methodology. This is the second report in the revised series—the first report already released being for Poona. Some of the important modifications carried out in the improved techniques and methodology relate to women employment, coverage of establishments in the private sector employing 5-9 workers on 100 per cent basis, complete profile of educational and technical institutions, comprehensive listing of establishments employing 1-4 workers in selected villages for assessing the existing avenues of self-employment etc. The degree/level of skill for each occupation has also been ascertained, through a separate technical survey carried out for the first time so that the existing training programmes could be suitably diversified and re-oriented to meet the local needs of the area. It is hoped that the above improvements carried out in the survey report will enhance the utility of the report manifold.

3. I would like to express my thanks to employers and their associations, heads of the training institutions and colleges, State Directorate of Employment and district Officials who extended their co-operation in the fullest measure to make this Survey a success. Thanks are also due to Shri S.M. Sinha, Assistant Director of Employment Exchanges, and other members of the Survey Team for their hard labour in carrying out the survey operations and for their resourcefulness in achieving a high degree of response in the collection of field data.

4. The Survey was organised under the overall direction and charge of Shri J.C. Gupta, Deputy Director of Employment Exchanges, Directorate General of Employment and Training, assisted by Shri Hari Krishan, Assistant Director of Employment Exchanges and other staff. Subsequently Shri V.K. Rajagopalan, Deputy Director of

Employment Exchanges, D.G. E. & T., took over the responsibility from Shri J.C. Gupta. The report has been prepared by Shri Hari Krishan.

5. Comments and suggestions for further improvement from the readers would be most welcome.

ISHWAR CHANDRA

Director General/Joint Secretary to the Government of India

DATED : 28TH APRIL, 1976.

*Shram Shakti Bhawan,
Rafi Marg, New Delhi.*

Pin : 110001.

CONTENTS

		Page
	Results at a glance	▼
	Scope and Methodology	viii
	Technical Notes	xii
CHAPTERS		
I	Background	1
II	Employment — 1974	8
III	Employment Growth	14
IV	<i>Manpower Requirements :</i>	
	(A) Manpower Content of the Plan Schemes	21
	(B) Overall Requirements	22
V	<i>Self-Employment :</i>	
	(A) Rural Areas	26
	(B) Urban Areas	29
VI	Training & Educational Facilities	32
VII	Modification in the Training and Apprenticeship Programme	36
VIII	Unemployment Trends	41
IX	Employment Potential	46
X	Recommendations for Action	48
APPENDICES		
I	Enquiry Schedules	57
II	<i>Establishment & Employment—1971 Census.</i>	70
	Part A : Distribution of Establishments by Broad Types	70
	Part B : Industry-wise Distribution of Establishments by size of Employment	71
III	Workers and Non-workers according to main activity by Sex and Age Group	72
IV	Industry-wise break-up of establishments according to the year in which they came up and employment in them in 1974	76
V	Occupational Pattern of Employees in selected Industries in 1974	77
VI	Women Employees by Occupation in 1974	105
VII	Employment Growth by Economic Activity	108
VIII	Employment Growth by Occupation	111
IX	Manpower Requirement	118
X	<i>Educational & Training Facilities :</i>	
	Part A : Details of Educational Institutions	126
	Part B : Out-turn from the Educational Institutions—by level of education	158
	Part C : Details of Educational Institutions by level of education.	158
	Part D : Existing Training Opportunities within the Establishments.	167
XI	Job Specification for Selected Trades in various Industries.	175
		(iii)

RESULTS AT A GLANCE

Out of the total number of 8291 establishments existing as on 31st March, 1974 as many as 4240 were those which came up during the last seven years period from 1967—74 while the remaining 4051 came into existence in 1966 or earlier.

(Chapter — II)

2. The total employment in all establishments as on March 1974 was 2.73 lakhs as against an employment of 2.07 lakhs in March 1967. Of the total employment public sector and private sector accounted for 47.0 per cent and 53.0 per cent respectively.

(Chapter — II)

3. Nearly half (48.5 per cent) of the total employed labour force in 1974 was in manufacturing followed by services (30.8 per cent), trade & commerce (9.5 per cent), transport storage and communication (6.2 per cent), electricity, gas, water and sanitary services (2.5 per cent) and construction 2.0 per cent.

(Chapter — II)

4. Women represented 4.8 per cent of the total employment in 1974. Almost all the women employees (99.0 per cent) were working in urban areas and only small portion (1.0 per cent) in rural areas.

(Chapter — II)

5. Bulk of the women employees were engaged in services (10.5 thousand) followed by manufacturing (2.0 thousand), transport, storage and communication (0.3 thousand) and trade & commerce (0.2 thousand).

(Chapter—II)

6. Only 406 establishments or 4.9 per cent of the total were located in areas classified as rural according to 1971 census. These establishments accounted for an employment of 5.2 thousand in 1974 as against 2.6 thousand in 1967.

(Chapter — II)

7. The minimum number of seasonal workers employed on single day was reported to be 6.8 thousand as against the maximum of 10.1 thousand. The important industries in which seasonal workers were engaged are manufacturing of bricks & tiles, leather work, milling & dehusking and production of edible fats & oils.

(Chapter — II)

8. Wage and salaried employment went up from 2.07 lakhs in 1967 to 2.73 lakhs in 1974 thereby showing an annual rise of 4.6 per cent. The employment is likely to rise further at an annual rate of 3.9 per cent and is expected to reach 3.27 lakhs by 1979. During the period 1967—1979 the annual growth rate of employment works out to 4.8 per cent.

(Chapter — III)

9. The employment in public sector increased at an annual growth rate of 3.4 per cent during 1967—1974 as against an anticipated yearly growth rate of 2.2 per cent by 1979. On the other hand private sector employment is likely to maintain an average growth rate of 5.4 per cent per annum during 1974—1979 as against the actual yearly growth rate of 5.8 per cent recorded during 1967—1974.

(Chapter — III)

10. Substantial growth in employment during the last seven years in terms of absolute number was recorded in manufacturing (30.7 thousand) followed by services (16.3 thousand), trade & commerce (10.6 thousand) and transport, storage & communication (4.7 thousand). During the next five years manufacturing is expected to show a rise of 31.3 thousand followed by services (12.2 thousand), trade & commerce (5.7 thousand) and transport, storage & communication (2.9 thousand).

(Chapter — III)

11. Industries such as cotton weaving in powerloom, cotton weaving in handloom; cotton cordage, rope & belts; carpets & durries; currying, tanning & finishing of hides; basic industrial chemicals; medicines, pharmaceuticals & cosmetics; smelting, refining & re-rolling of iron and steel, iron & steel furniture, metal products such as tin cans; sundry hardwares and electric lamps & fans are likely to pick up at a faster rate by 1979 as compared to the corresponding actual increases during the past seven years i.e. 1967—1974.

(Chapter — III)

(v)

12. Increases of the same magnitude (23.5 thousand) have been noticed during the past seven years and the next five years in case of production & related workers and transport equipment operators. In case of professional, technical and related workers an increase of 6.7 thousand has been forecast for the next five years as against an actual rise of 8.2 thousand recorded during the past seven years i.e. 1967—1974.

(Chapter — III)

13. Additional opportunities for self-employment could be created to the extent of 50.1 thousand persons in the light of modernisation of agriculture, local produce, other resources, expanding needs for maintenance and other services. Besides allied agricultural fields such as dairy farming; poultry farming; nursery & vegetable cultivation and piggery & sheep rearing, considerable scope for self-employment also exists in such non-agricultural fields as spinning & weaving; carpentry & wood work; retail selling; blacksmithy; tailoring; oil expelling; brick laying; shoe making & repairing; repairing & servicing of diesel engines and agricultural implements; basket making; pottery; laundering, dyeing & bleaching; bidi making and fishing & boating. Some of the new fields from the point of self-employment are soap making, tanning & seasoning of leather, khandsari & garr making and candle making.

(Chapter — V)

14. Working proprietors and partners of private firms have played an important role in building up of the industrial complex in the rural areas. The principal industries which are the result of individual entrepreneurship are rice, atta & flour, ice & ice-cream, wood & wooden products, leather & leather products, rubber & rubber products, sundry hardwares, bricks & tiles, retail trading in petrol & mobile oil and hotels & restaurants.

(Chapter — V)

15. The skill requirements of the area by 1979 will be of the order of 76.6 thousand (excluding unskilled workers who are likely to be of the order of 13.8 thousand). Man-power requirements by broad occupational categories for the next five years, by 1979, will be as follows :—

Occupational category		Number	Percentage
I.	<i>Professional, technical & related workers</i>	10907	12.1
	(i) Scientists, engineers & technologists	2153	2.4
	(ii) Doctors and medical & health technicians	986	1.1
	(iii) Teachers	6778	7.5
	(iv) Accountants, social scientists, & other professionals	990	1.1
II.	<i>Administrative, Executive & Managerial workers</i>	7246	8.0
III.	<i>Clerical & related workers (excluding unskilled office workers)</i>	8952	9.9
IV.	<i>Sales workers</i>	2513	2.8
V.	<i>Service workers (excluding watchmen, chowkidars, cleaners, sweepers & watermen)</i>	3150	3.5
VI.	<i>Farmers, Loggers & related workers (excluding agricultural & plantation labourers)</i>	444	0.5
VII.	<i>Production & Related Workers and Transport Equipment operators (excluding labourers)</i>	43374	48.0
	(i) Production & related workers	42526	47.1
	(ii) Transport equipment operators	848	0.9
	Total:	76586	84.8
VIII.	<i>Unskilled workers</i>	13821	15.2
Grand Total:		90407	100.0

(Chapter IV)

(vi)

16. Slightly less than half of the total manpower needs during 1974-1979 will be for below matriculates (including illiterates). This includes sizeable requirements for production and related workers for whom no formal institutional training or possession of a recognised certificate or diploma has been considered as an essential criterion for recruitment. Another 1/4th of the total jobs will be for recognised certificate holders which includes demand for primary and middle school teachers, production and related workers as well as para-medical workers.

(Chapter-IV)

17. There is a need for strengthening the existing training programme or apprenticeship facilities in respect of following trades:

1. Moulder
2. Carpenter
3. Blacksmith
4. Machinist
5. Miller
6. Grinder
7. Welder (Gas and Electric)

(Chapter VII)

18. It is necessary to make modifications in the curriculum of the following designated trades with a view to ensure that the trained personnel meet fully the requirements of the local employers.

1. Electrician
2. Wiremen
3. Moulder
4. Plumber

Besides, more emphasis needs to be given for practical training in all the other trades.

(Chapter-VII)

19. As Kanpur is predominantly a textile area, the following additional trades in the textile group need to be brought under the Apprenticeship programme.

1. Winder/Reeler
2. Sizer (front and back)
3. Wrapper (front and back)
4. Drawer
5. Knitter
6. Sam

(Chapter-VII)

20. The following occupations also need to be introduced at the ITIs or included in the Apprenticeship Training programme so that the employers do not feel difficulty in getting such type of personnel.

1. Telephone mechanic
2. Telephone operator
3. Pump driver/attendant
4. Armature winder
5. Pipe fitter (water works)
6. Electrical fitter

(Chapter-VII)

SCOPE AND METHODOLOGY

An Area Skill Survey is basically a method to determine in respect of a given geographic area, current availability of skills and requirements in the foreseeable future. Of the several methods designed to estimate future manpower needs, Area Skill Surveys have some distinct advantages. Firstly, skill surveys aim at eliciting information by a direct approach to employers and training institutions instead of attempting manpower projections on the basis of assumed growth rates and targets. Secondly, in view of the well known fact that skilled manpower excluding perhaps high level manpower has limited mobility, manpower planning to be effective must be at the area level. Thirdly, in the National Employment Service, with its net work of Employment Exchanges with whom a fund of information about local labour market is available, a base already exists which can be easily developed to undertake the work of collecting additional data required for skill surveys. Finally, because of the simplified process of data collection inherent in Area Survey Programme, a continuous analysis of Labour market can be obtained enabling initiation of remedial measures to remove current and anticipated skill imbalances.

2. Broad objectives of Area Skill Surveys are:—

- (i) to provide information for use in vocational guidance and in initiating an effective career advisory service which depends for its success on a sound knowledge of changing job opportunities in different occupations in the area;
- (ii) to furnish details for use in job development and placement activities of the Employment Service;
- (iii) to provide specific information on changes that will be necessary in training and apprenticeship programme to meet future requirements;
- (iv) to provide information about fields in which financial and other assistance is indicated for promotion of opportunities for employment and self-employment;
- (v) to provide area-wise information concerning manpower resources needed in connection with location and expansion of industries;
- (vi) to study and collate information regarding manpower content of plan schemes and expansion programme envisaged for the area; and
- (vii) to provide information needed for manpower planning at area or 'grass-root' level.

3. To start with, fifteen districts in the country were taken up for conduct of Area Skill Surveys on pilot basis. The areas taken up for study were drawn from each of the following three types;

- Type A— Highly industrialised urban areas with large skilled labour force and having complex employment market;
- Type B— Districts having a fairly developed urban industrial base as well as rural base characterised by advanced and mechanised agricultural operations;
- Type C— Predominantly rural areas marked by traditional agricultural activity where there is need for expansion of non-agricultural sector and avenues of self-employment.

4. This report embodies the findings of the survey conducted in Kanpur District according to the revised methodology and techniques suggested by the Expert Sub-group. Some of the more important improvements carried out in the procedures and methodology are as follows:—

- (i) *Employment of Women.*— Information on current volume of employment of women by occupations and industries which is indispensable for taking up Vocational Guidance and Training programme for women has been obtained and incorporated in the report.
- (ii) *Age-wise distribution of employees, separations and engagements during the last 12 months and number of persons promoted.*—In view of the considerable difficulties expressed by the employer in furnishing age-wise break up of the employees, the collection of this information has been deleted. Besides a uniform labour attrition rate of 2% per annum has been applied to work out manpower needs arising as a result of labour turnover. As such the collection of information on aspects such as separations and engagements has also not been attempted. The simplification of questionnaire has been welcome by employers and has improved timely response.

(viii)

- (iii) *Emerging and decaying skills.*—Experience has shown that precise information on this aspect has not been forthcoming. Accordingly this item has been deleted from the Employer schedule.
- (iv) *Number of vacancies remaining unfilled.*—Information regarding number of vacancies against which recruitment was pending in an establishment has been also obtained with a view to having more realistic estimate of manpower needs.
- (v) *Employment in Smaller Private Establishments.*—Smaller private establishments employing 5—9 workers were earlier covered on 20 per cent sample basis. Experience has, however, shown that constructing of frame of the smaller establishments through street surveys, drawing of sample and then again re-visiting the sampled establishments for the collection of necessary information is a time consuming process. Besides much time has also to be devoted in compilation of data and then bloating it. In order to make it a less cumbersome process information from smaller private establishments has been collected on cent percent basis on a simplified schedule (AS-VII).
- (vi) *Training/Apprenticeship programme within the Establishment.*—Separate data has been obtained in respect of persons by sex, trained under the Apprenticeship Act 1961 and those under employers' own programme by duration of training, likely out-turn during the next five years.
- (vii) *Unemployment.*—Data about rural educated unemployed (Matriculates and above) and skilled artisans possessing a recognised certificate has been obtained during the course of door-to-door-survey carried out for the purpose of constructing the frame of establishments with 1-4 workers (including self-employed) in respect of 10 per cent of villages selected for the Village Schedule. (AS-V).
- (viii) *Existing and future avenues of self-employment in rural areas.*—Information on this aspect has been collected earlier through discussions held with village elders, officials and other knowledgeable sources in respect of 10 per cent of villages included in the survey. In view of the doubt raised about the validity of data so collected, information on this aspect has been obtained while constructing the frame of establishment with 1-4 workers (including self-employed) in respect of every village taken up for the survey.
- (ix) *Degree/Level of skill.*—Although the need for information about manpower needs by occupation has been recognised in organising training programme, an attempt has been made to further grade the skill needs to find out the exact type of training which would be needed to meet the specific requirements of industries at the local level.

5. The approach adopted for collection of information for Area Skill Surveys is based on what is known as 'Establishment Reporting' system. In order to achieve satisfactory response and accurate data, the Enquiry Schedules (Questionnaires—Appendix-I) designed for the survey were collected through personal interviews by trained staff. Following chart outlines the Enquiry Schedules that were canvassed for the collection of information:

<u>Schedule & agencies from whom information was collected</u>	<u>Type of information collected</u>
(i) <i>AS-I Employers' Schedule</i> All establishments in the public sector; all establishments in the private sector employing ten or more workers;	Persons employed by occupation seven years ago and currently; Working proprietors; Expansion plans and factors hindering existing production or expansion or full utilisation of installed capacity; Future manpower needs by occupation five years hence on the assumption that factors which were limiting expansion or production would be overcome; Manpower shortages; Economic activity; Year of establishment; Women employment etc.,
(ii) <i>AS-II Schedule for Emerging Establishments</i> All emerging establishments known to be in the blue-print stage or in different stages of completion on the date of enquiry.	Likely date of commencement of production or activity; Nature of Economic activity; Likely number of persons to be employed by occupation during next five years.

- (iii) *AS-III Schedule for institutions imparting professional and technical education.*
- All institutes, polytechnics, universities etc. imparting professional and technical education. Likely out-turn by courses and professions during next five years at the certificate, diploma, graduate and post-graduate level, including intake capacity, minimum qualification required for admission, fee charged etc.
- (iv) *AS-V Schedule for educated unemployed and channels of self-employment in rural areas*
- 10 per cent villages selected from each development block. Existing avenues of self-employment other than agriculture, additional opportunities for self-employment that could be created in the light of modernisation of agriculture, local produce and other resources and expanding needs for maintenance and other services; educated unemployed; period of unemployment; number registered with employment exchange.
- (v) *AS-VII Employers' schedule for private smaller establishments employing 5—9 workers*
- From all the private establishments having 5—9 workers. Persons employed by occupation seven years ago and currently; number of working proprietor, economic activity, year of establishment, current women employment etc.
- (vi) *AS-VIII Schedule for development plans and manpower needs of Government departments*
- From Heads of Departments. Data regarding manpower content of Fifth Five Year Plan schemes and expansion programme during next Five years.
- (vii) *AS-IX Schedule for employment potential of the District*
- From Government Departments and other organisations of the area. Additional employment opportunities which could be generated in the light of economic characteristics and availability of natural resources in the area.
- (viii) *Proforma-A*
Proforma for collection of information about the degree/level of skill
- Bigger establishments having 100 or more skilled workers with at least 7 in a particular cadre, all emerging establishments who anticipated additional requirements of at least seven in a trade. Various products of the establishment, activity of industry, number of persons employed by categories, selection preference, training activities for workers, additional training needs etc.

6. A mass of statistical data and information which was available from other sources was also studied in the presentation of area reports. Some of the important sources were—(i) data available from day-to-day operations of employment exchange, (ii) data collected under Employment Market Information Programme of Employment Service, (iii) decennial population census, (iv) district plans, (v) small scale and rural industries, (vi) agricultural conditions, (vii) socio-economic surveys, (viii) reports of employers' associations, (ix) records of local bodies, Government departments, licensing authorities, employers' associations etc.

7. A District Advisory Group on Area Skill Survey was constituted under the Chairmanship of the District Magistrate to review periodically the progress in the collection of schedules and devise ways and means to ensure the fullest cooperation from employers. Other members nominated to serve on the District Advisory Group were drawn from the concerned departments of Labour, Planning, Education, Technical Training, Agriculture, Industries, Local body and Trade Unions.

(x)

8. Some of the important recommendations made by the District Advisory Group on Area Skill Survey and action taken thereon are as follows:—

<i>Recommendations</i>	<i>Action</i>
Intensive publicity measures should be undertaken in advance before the officers of the Survey team start contacting establishments for collection of data. This would enable the establishments to understand the various items of the Schedule and in some cases they may be able to keep information ready.	This is already being adopted. Wide publicity is given to the programme of Area Skill Surveys by way of issuing high level appeals, press notes and broadcasts on the All India Radio etc.
Big establishments found it difficult to furnish age-wise information of their employees.	This item has been deleted.
Difficulties were experienced in collection of information about expansion programmes for the next two or five years.	This was found to be particularly difficult in respect of public sector establishments as future plans in respect of them are stated to be prepared at higher level. Considering this difficulty Area Teams have now collected information from the district plans in case these are available or alternately expansion plans are collected from parent departments of the government. Encouraging success has been achieved now.

9. The concepts, assumptions and analytical techniques adopted are given in the 'Technical Notes' that follows.

TECHNICAL NOTES

The following paragraphs outline the concepts, assumptions and analytical techniques employed on the basis of which findings and Conclusions have been drawn for presentation in this report. It is hoped that as more experience is gained, the methodology and technique will be further refined.

2. **Reference Dates.**—The data on employment i.e. number of regular employees on pay-roll including working proprietors and partners relates to the following reference dates:

Employment seven years ago	— as on 31st March, 1967.
Current Employment	— as on 31st March, 1974.
Anticipated Employment	— by 31st March, 1979.

3. **Establishments and Employment.**—A comprehensive and up-to-date frame of establishments, being an essential pre-requisite, was constructed on the basis of the Employers' Register maintained at Employment Exchanges under the Employment Market Information (EMI) programme and other sources. This was further supplemented with reference to special street surveys carried out by the field staff in the district. A high degree of comprehensiveness in the construction of frame was achieved. This would be apparent by a comparison of the establishments covered under Area Skill Survey vis-a-vis E.M.I. Programme.

	Number of establishments under	
	Area Skill Survey	Employment Market Information Programme
A. Public Sector	509	386
B. Private Sector	7782	2314
(i) Bigger Establishments employing 10 or more workers	2670	1509
(ii) Smaller Estts. employing 5—9 workers	5112	805
Total (A & B)	8291	2,700

4. The employment revealed under the E.M.I. Programme (which does not cover private establishments employing less than ten workers) was about 1.96 lakhs in 1967 and 2.12 lakhs in 1974, thereby showing an average growth rate of 1.2 percent per Year. As against this comparable employment figures thrown up by the Area Skill Survey (excluding employment in smaller establishments i.e. employing 5—9 workers are 1.94 lakhs and 2.42 lakhs in 1967 and 1974 respectively, giving a growth rate of 3.6 per cent per year. The employment figures under Area Skill Survey during 1967 are less by 2 thousand in comparison to E.M.I. data. This is mainly because of shifting or closure of some establishments after March, 1967 which for obvious reasons could not be accounted for in the frame of establishments constructed in 1974 under Area Skill Survey. However, Area Skill Survey figures for the Year 1974 are more than the E.M.I. figures due to the identification of a larger number of establishments, that have emerged between 1967 and 1974. Another possible reason for the wide variations between the E.M.I. and Area Skill Survey is the possible errors involved in the estimation of employment in respect of defaulting establishments under the E.M.I. programme. Besides 'personal interview method' of collection of data followed under the Area Skill Survey has also yielded better results. It may be recalled that the Dantwala Committee also recommended adoption of personal interview method for the collection of data under E.M.I. programme. For the same reason the meeting of the Working Group on National Employment Service held in 1973 favoured raising of survey teams for conduct of street surveys on a continuing basis to ensure comprehensive coverage of employers.

Response

5. The personal interview method coupled with an intensive programme of public relations undertaken from the very beginning, as well as the efforts of District Advisory Group resulted in achieving hundred percent response.

Employment Growth

6. Future employment growth has been worked out by taking into account under-mentioned components:

A. Forecast Furnished by Existing Employers

- (i) The employers were requested to estimate future employment in their respective establishments on the basis of their expansion plans and on the assumption that existing shortages

(xii)

and difficulties relating to raw-materials, power, finance, foreign exchange etc., which may be hindering production or expansion or fuller utilisation of installed capacity would be overcome in the coming years.

- (ii) Experience has shown that Public sector establishments at the district level were, by and large, not in a position to estimate their future employment as expansion and development plans in their case were still in the finalisation stage at higher level. Efforts were, therefore, made to establish contacts with the Heads of the Departments and the Ministries concerned, to collect data through a separately designed questionnaire (AS-VIII) regarding employment likely to be generated both as a result of implementation of minimum social and welfare programmes of compulsory education, adult literacy, family planning, health sanitation, communication etc., and due to expansion plans. This has resulted in arriving at fairly accurate manpower estimates in respect of departments such as Education, Irrigation, Animal Husbandry, Medical & Public Health Services, Industry and Labour etc. (Refer Chapter IV).

B. *Employment Likely to be generated by emerging establishments*

All possible efforts have been made to identify the establishments which are currently known to be in blue-print stage or in different stages of completion but likely to emerge in the next 5 years. This led to the identification of as many as 53 new establishments. A comprehensive listing of all new establishments is not possible because such establishments/projects which may be planned subsequent to the date of enquiry cannot be brought within the ambit of the survey. Some idea of inadequacy in listing emerging establishments can be had by an analysis of the past trends pertaining to emergence of establishments over a period of time. During the period of 1969-74 as many as 952 establishments came into existence while only 53 emerging establishments could be identified for 1974-79.

C. *Employment projected for smaller private establishments*

From a study of the data for the past 5 years (Table below) it is noticed that a sizeable number of smaller private establishments (employing 5-9 workers) such as trading shops, eating places, minor repairing & servicing units have been coming up in the normal course from year to year. They have not only come up on a uniform economic pattern to meet the needs of population growth, urbanisation and expanding economy, even the number that has emerged from year to year in each category is almost of the same order. As no formal planning or advance action (e.g. land acquisition, licence, power connection, finance etc.) is required in raising such establishments, it is hardly possible to construct comprehensive frame of such establishments for the purpose of estimating future employment. In order to bridge the gap and to build up a more realistic estimate, manpower projections have been worked out on the basis of past trends for which ample justification exists.

Economic Activities	Number of private establishments (5-9 workers) and employment in them which came up during a year											
	1969		1970		1971		1972		1973		Total	
	A	B	A	B	A	B	A	B	A	B	A	B
Agriculture Live-Stock	4	26	4	25	2	10	4	22	3	17	17	100
Mfg. including rep. & servicing	221	1341	265	1557	156	950	231	1383	434	2570	1307	7801
Trade & Commerce	120	706	151	890	90	525	124	742	170	987	655	3850
Transport, Storage & Communication	9	58	16	93	5	28	6	32	20	129	56	340
Educational Services	10	66	12	84	5	34	5	35	13	80	45	299
Eating places	29	169	44	248	21	119	30	169	71	410	195	1115
Laundry Services	9	56	6	33	5	28	5	33	6	33	31	183
Other Services	7	38	13	74	4	27	7	38	9	53	41	239
Total	409	2460	511	3004	288	1721	412	2454	726	4279	2347	13927

A—Number of Establishments.

B—Employment as on 31st March, 1974.

(xii)

D. *Employment projected for segments marked by uniform GROWTH PATTERN in private sector (establishments employing 10 and above workers).*

Detailed analysis of employment pattern by economic activities in private sector establishments employing 10 or more workers during the past 5 years has been undertaken to identify such segments which revealed a fairly uniform employment growth year after year and thereby afforded full justification for projection on the basis of past trend. The segments thus identified are given below. Manpower projection on the basis of past trend in bigger private sector establishments (10 or more workers) have been worked out only in respect of them.

New Private Establishment and Employment in them which came up during a year

Industry	1969		1970		1971		1972		1973		Total	
	A	B	A	B	A	B	A	B	A	B	A	B
1	2	3	4	5	6	7	8	9	10	11	12	13
Food Stuffs	10	142	9	105	17	296	11	173	13	170	60	886
Textiles	11	178	15	190	16	269	15	197	16	220	73	1054
Wood & Wood- en Products	7	74	5	43	6	79	5	53	5	53	28	302
Leather and Leather Products	5	69	5	124	8	328	6	300	1	11	25	832
Printing and Publishing	1	10	4	55	10	149	3	56	..	..	18	270
Rubber and Rubber Products	1	17	1	33	..	..	5	67	1	7	8	124
Basic Chemicals and Chemical Products	12	213	13	195	16	284	14	217	8	92	63	1004
Bricks & Tiles	6	67	1	11	2	28	1	14	5	64	15	184
Iron & Steel, Alloys, Steel Products and Iron and Steel furniture	10	261	15	211	15	250	16	265	6	114	62	1101
Sundry Hard- wares	9	150	23	341	10	190	10	235	11	300	63	1216
Motor vehicles & engine parts and their ser- vicing	1	11	4	39	2	32	3	152	3	55	13	289
Machinery & electrical equip- ment	4	113	5	69	8	267	11	135	10	202	38	786
Others	6	118	9	129	5	73	5	220	5	50	30	590
Banking	1	28	2	33	1	35	..	..	..	..	4	96
Trade & Com- merce	13	158	18	236	14	160	10	125	9	112	64	791
Transporting by motor vehicles	9	173	11	136	4	80	8	101	6	72	38	562
Operation of Storage	..	..	..	..	1	20	1	13	1	10	3	43
Educational ser- vices	23	364	22	336	12	167	12	135	10	147	79	1149
Recreation Ser- vices	..	..	1	13	2	40	1	13	3	41	7	107
Hotels & Res- taurants	3	45	9	171	3	41	4	47	5	61	24	365
Total	132	2191	172	2470	152	2791	141	2518	118	1781	715	11751

A—Stands for establishments

B—Stands for employment as on 31-3-1974

Self-employment

7. Data indicative of self-employment is discussed below:—

A. Rural Areas

- (i) Data on self-employment in the non-agricultural sector in rural areas was collected from a sample of 10 percent of villages in each community development block. Of the total inhabited villages in the district, 198 villages representing 14.0 percent of the rural population were studied. In order to have a more precise estimate of channels of existing self-employment in non-agricultural activities, the necessary information was collected by conducting comprehensive door to door survey of the sampled villages to identify establishments in the size class 1-4 workers (including both wage-paid employment and self-employment). The data was bloated by using the multiplying factor of 7.1 which is reciprocal of the proportion of the population of the sampled villages to the total rural population of the district.
- (ii) Village officials and elders were also requested to estimate additional opportunities for self-employment that could be created in the light of modernisation of agriculture, availability of raw-materials and expanding needs for maintenance and other services. It is believed that these estimates would be fairly indicative of the self-employment potential in rural areas.

B. Urban Areas

A comprehensive coverage of self-employment and other mixed employment in urban areas was outside the scope of the survey. However, a limited assessment in respect of those segments of economy for which information was readily available from existing records of Government departments, local bodies employers' and trade associations, licensing authorities etc., was made. Although no forecasts have been attempted on the basis of this data, its utility lies in the fact that it sheds interesting light on the trend of self-employment and other mixed employment in urban economy.

C. Working proprietors and partners

Information in respect of these persons has been obtained separately on Employers' Schedule. It is believed that to a considerable extent, the small establishments are the handi-work of a single individual or a group of individuals who besides supervising the establishment or enterprise also engage paid workers. Accordingly, an analysis of working proprietors and partners by economic activity has, in the context of economy and needs of the area been taken to be indicative of avenues for self-employment.

Future Manpower needs

8. The following components were taken into account to calculate future manpower needs of the area:—

- (i) Employment growth;
- (ii) Replacement needs due to attrition in the existing work force in conformity with the accepted norm have been calculated at the rate of 2 percent per year.
- (iii) Vacancies remaining unfilled in establishments on reference date (i.e. 31-3-1974).

Unemployment

9. The Live Register figures of Regional Employment Exchanges Kanpur, Special Employment Exchanges for Physically Handicapped, Kanpur, University Employment Bureau, Kanpur and Professional and Executive Office, Lucknow, have been used as an indicator of the current level of unemployment in the district.

10. Because of seasonal variation and under-employment prevailing particularly among unskilled agricultural workers and other factors, the number of educated unemployed (Matriculates and above) and skilled rural artisans possessing a recognised certificate etc. has only been obtained during the course of door to door survey of sampled villages.

Degree/Level of skill

11. Degree/Level of skill for each occupation was ascertained from all those establishments employing 100 or more workers or 7 or more workers in an occupation with a view to restructuring the existing training programme to suit the local needs.

Tabulation

12. All data has been tabulated manually.

CHAPTER I

BACKGROUND

1.1 Kanpur district in Uttar Pradesh, is situated in the fertile central plain of the upper Ganga Valley flanked by the river Jamuna in the South and the Ganga in the north-east, and is of an irregular shape. To the eastern side of the south-east of Kanpur district the boundaries of seven districts in order are Fatehpur, Unnao, Hardoi, Farrukhabad, Etawah, Jalaun and Hamirpur. Maximum length of the district from East to West is about 104 km. and from North to South is about 112 km.

1.2 The number of villages in the district is 2063 (1898 inhabited and 165 uninhabited) which comprises the rural area. Administratively the district comprises of six tehsils viz. Kanpur, Ghatampur, Bhoginipur, Akbarpur, Derapur & Bilhaur. According to 1971 census there are two towns viz. Kanpur and Pukhrayan classified as urban. The villages are grouped into 20 development blocks of which 3 each are in the tehsils of Kanpur, Ghatampur, Bhoginipur, Akbarpur and 4 each in the tehsils of Derapur and Bilhaur. These development blocks have been also sub-grouped into three main regions comprising 7, 5 and 8 blocks respectively. Out of the 1898 inhabited villages there are 4 towns which have not been classified as urban. 4 Non-urban towns and 336 villages have been electrified upto 1971-72.

1.3 **Land utilisation.**—Of the total area of 6203 sq. km. of the district (rural 5909 sq. kms. and urban 294 sq. kms) 4322 sq. km. or 67.7 per cent is under agriculture and only 1.9 per cent under forest. At some places jungles of dhak are found which are vanishing slowly and in their place cultivable land is coming up. The following table shows the land utilisation pattern of Kanpur district during 1968-1969 as available with the Surveyor General of India.

TABLE 1
Land utilisation

Category	Area in sq km.
Forests	12
Land put to non-agriculture uses	1,080
Permanent pastures land	50
Land under miscellaneous three Crops and groves not included in the area sown	150
Cultivable waste land	230
Current fallow land	150
Fallow lands other than current fallow	110
Net area sown	4320
Area sown more than once	880
Gross cropped area	5,200

1.4 Considering the irrigation facilities of the region it is found that the south-west region is lagging behind over the other two regions namely the north-west and the eastern. The following table shows the area sown and the area irrigated:

TABLE 2

Name of the region	Area sq. km.	Total area sown sq. km.	Percentage of area sown	Total area irrigated sq. km.	Percentage of area irrigated to total area sown
1	2	3	4	5	6
South-west region	2481	1870	75.5	550	29.2
North-west region	1555	990	63.8	410	41.0
Eastern region	2167	1460	67.1	590	40.0
Total	6203	4320	67.7	1550	35.80

1.5 **Agriculture.**—Like other districts of the State Kanpur is also predominantly agriculture in character. Kanpur district is mainly depending on rains and irrigation though other sources like canals, wells, ponds, lakes and tube-wells play only a limited role. By the end of 1971-72 about 36% of the total cultivable land in the district had got the irrigation facilities. The Ganga flows along the north eastern boundaries of the district for its entire length skirting tehsils of Bilhaur and Kanpur. It has a wide and sandy bed in which the stream rolls from side to side, changing its channel almost every year. The Jamuna river first touches this district in the extreme west of Bhoginipur tehsil and maintains a south easterly course as far as the southern extremity of the tehsil of Ghatampur in the interval forming the boundary between Kanpur and the district of Jalauna and Hamirpur. The other small rivers of the district with their length given in brackets are : (a) Ishan (16 km), Pandu river (103 km), (c) Sangur (53 km), (d) North Noan (46 km), (e) South Noan (40 km), and (f) Rind river (132 km).

Ishan and Noan rivers are the tributaries of the Ganga and Rind is the chief tributary of the Jamuna. The soil, like other parts of 'DOAB' is DOMAT (Alluvial).

1.6 The average rain fall in the district during the last five years is 874 mms. The food crops grown in the district are paddy, jawar, bajra, maize, wheat, barley, gram, arhar, peas, sugarcane and oil seeds.

1.7 **Minerals.**—Kanpur district is not known for minerals. At some places however, Kankar is available which is used in the construction of roads.

1.8 **Communication.**—Kanpur district is well connected with other parts of the country by rail, as well as by road. It lies on National Highway No. 25 connecting Lucknow with Jhansi, Kanpur is connected via Lucknow with districts lying on North, West and Eastern parts of Uttar Pradesh such as Moradabad, Bareilly, Sitapur, Shahjehanpur, Faizabad, Basti and Gorakhpur. It also lies on the G.T. Road running from Calcutta to Amritsar. This road connects Kanpur with Varanasi, Allahabad, Fatehpur, Kannauj, Etawah, Aligarh, Bulandsahr, Meerut and districts further North. The total length of the roads in the district is 849 km. It is served by the Northern, Central and North Eastern Railways—the first two being broad gauge and the last meter gauge. The main line of the Northern Railways from Delhi to Mughulsarai and onward to Calcutta (on Eastern Railways) passes through Kanpur. A branch line of the same system connects it with Lucknow and Amritsar Mughulsarai main line. Kanpur is also connected with Jhansi and Banda by branch lines of the Central Railways. A branch of the North Eastern Railways called the Oudh-Tirhut Railways, before the zonal grouping, connects it with Lucknow on one side and Kasganj and Agra Fort on the other. Kanpur also finds a place on the Air map of India and is connected to important towns of India.

1.9 **Industries.**—Kanpur is described as the industrial metropolis of the state. Many of the biggest factories of the State are located at Kanpur. The Industrial development of Kanpur is said to owe more to historic factors than to other aspects like availability of Industrial raw-material, coal or locational advantage from the stand point of low transport cost as Kanpur is not at all well-placed in these regards. The industrial development started with the setting up of a few industries by the East India Company at Kanpur City. In course of time Kanpur has developed a conglomeration of industries both in the public and the private sectors. Among the large scale factories there are 7 agro-based industries, 12 textile based industries, 3 chemical-based industries, 12 engineering based industries and 4 miscellaneous industries. The textiles based units occupy a pivotal position in large scale factories, in view of their capital investment, annual value or production and employment. They include spinning, weaving and printing of textiles jute mills and woollen mills. Agro based industries include, flour mills, edible oils and hydrogenated oils etc. The chemical based industries include heavy chemicals and gas manufacturing and distribution. The engineering based industries include rolling, tube making and wire drawing, casting textile machinery and accessory, transport equipment and electric lamps. The small scale industries have agro-based, textile-based, forest-based, live stock-based, chemical-based, engineering-based and miscellaneous units. The government is also an important participant in the industrial development of Kanpur. The important undertakings set up by the government are Ordnance factories, Hindustan Aeronautics Ltd., Harness & Saddlery factory, Thermal power project, Modern Bakery. There are three government industrial estates and one co-operative industrial estate. Kanpur also has village industries which include gur and khandsari making, matches, processing of important cereals, carpentry, blacksmithy, leather, pottery, bee-keeping, gobar gas, fruit preservation and canning, aluminium utensils, brick-kilns and hand-made paper. Small scale industries have developed export market. Agro-based industries provide more of export contribution with textile-based industries coming next.

1.10 **Population.**—According to 1971 Census the district had a population of 29.96 lakhs (Rural 17.14 lakhs and Urban 12.82 lakhs) which is 25.8 per cent higher than the corresponding figures of 23.81 lakhs in 1961 (Rural 14.05 lakhs and Urban 9.76 lakhs). While the urban population increased by 31.3 per cent

during the decade 1961-1971 the rural population increased by 22 per cent during the same period. The relevant data is given in the following table:—

TABLE 3
Population Growth
(Figures in brackets indicate the percentage of total)

	Population in lakhs		Percentage increase (1961-71)
	1961	1971	
Rural	14.05 (59.0)	17.14 (57.2)	22.0
Urban	9.76 (41.0)	12.82 (42.8)	31.3
Total	23.81 (100.0)	29.96 (100.0)	25.8

1.11 Although the urban population growth rate is about one and a half times of the rural population growth rate, the rural population continues to be predominant in the district.

1.12 The density of population of Kanpur district which was 383 persons per sq km during 1961 increased to 489 persons per sq km in 1971.

1.13 The following table shows the break-up of population by sex in 1961 and 1971 separately in the rural and urban areas:

TABLE 4
Rural and urban population by sex
(Figures in brackets indicate the percentage of female population to total)

	1961			1971		
	Persons	Male	Female	Persons	Male	Female
Rural	1405062	753233	651829 (46.4)	1713901	925921	787980 (46.0)
Urban	976291	561440	414851 (42.5)	1282331	727573	554758 (43.3)
Total	2381353	1314673	1066680 (44.8)	2996232	1653494	1342738 (44.8)

1.14 It would be seen from the above table that the proportion of females to total remain the same (44.8) in 1971 as compared to 1961. In absolute number there were 3.11 lakhs more males than females in 1971 as compared to the corresponding figures of 2.48 lakhs in 1961. It would further be seen that the percentage of females in urban areas has increased while in the rural areas it has come down.

1.15 *Age-wise distribution.*—The following table shows age-wise distribution of 1971 population in Kanpur district.

TABLE 5
Age-wise distribution of population
(Figures in brackets indicate percentage to total)

Age-group	Rural	Urban	Total	Male	Female
0—14	747621 (43.6)	497,322 (38.8)	12,44,943 (41.6)	660,278 (39.9)	584,665 (43.5)
15—59	863,512 (50.4)	732,197 (57.1)	15,95,709 (53.2)	902,959 (54.6)	692,750 (51.6)
60 & above	102,768 (6.0)	52,812 (4.1)	155,580 (5.2)	90,257 (5.5)	65,323 (4.9)
Total	17,13,901 (100.0)	12,82,331 (100.0)	29,96,232 (100.0)	16,53,494 (100.0)	13,42,738 (100.0)

1.16 The percentage of population in the age-groups 0-14 years and 60 and above is comparatively more in rural areas as compared to the corresponding proportion in urban areas. The position is however, reverse for the other age-group viz. 15-59 years. As expected the percentage of population in the age-group 15-59 is more for males than females. The following table gives the distribution of total population in various age-groups for rural, urban males and females.

TABLE 6
Percentage distribution of rural, urban population according to various age-groups

Age-group	Percentage of total population				
	Rural	Urban	Total	Male	Female
0-14	60.1	39.9	100.0	53.0	47.0
15-59	54.1	45.9	100.0	56.6	43.6
60 & above	66.1	33.9	100.0	58.6	42.0
Total	57.2	42.8	100.0	55.2	44.8

1.17 *Literacy*.—As per 1971 population census the percentage of literacy was 36.6 which is higher by 5.2% than 1961 census figures. This percentage is more than one and a half times the corresponding figures for the state as a whole (21.6 per cent). 45.8 per cent of the total male population are literate while among females only 25.4 per cent are literates. 57.2 per cent of urban population are literates as compared to 42.8 per cent in the rural areas. The relevant data are contained in the following table:—

TABLE 7
Literacy

	Male	Female	Total
Rural	36.2	14.1	42.8
Urban	58.0	41.3	57.2
Total	45.8	25.4	36.6

1.18 *Workers and non-workers*.—In the 1971 Census the population has been broadly divided into two groups namely (i) Workers and (ii) Non-workers on the basis of the main activity in which a person was found to be engaged. The worker is a person whose main activity is participation in any economically productive work, by his physical or mental activity. Work involves not only actual work but effective supervision and direction of work. The definition of a worker during 1971 census was different than that adopted during 1961 census. During 1961 all those seasonal workers who had some regular work of more than an hour a day throughout the greater part of the season were treated as workers. The 1971 census however, stipulates that a person primarily engaged in household duties or those who were students and helped in family economic activity but not on a full-time scale should be treated as non-workers in respect of their main activity. The figures of 1961 and 1971 are therefore, not comparable in this regard.

1.19 **Workers**.—1971 decennial population census has enumerated 8.80 lakhs persons as workers. The participation rate defined as the proportion of workers to population was 29.4 per cent. The corresponding rates for rural and urban were 29.2 and 29.6 per cent respectively. The following table contains the relevant data.

TABLE 8
Participation rate 1971

	Male	Female	Total
Rural	51.4	3.1	29.2
Urban	50.3	2.4	29.6
Total	50.9	2.8	29.4

1.20 It may be of interest to note that the participation rate is higher in the urban areas than the rural areas. The participation rate both for men and women separately in rural areas is however, slightly more than the corresponding rates for the urban areas.

1.21 The following table shows the distribution of workers by broad industrial categories adopted under the 1971 tabulation census.

TABLE 9
Workers by industrial categories

(Figures in brackets indicate percentage to total).

Economic activity	Workers		
	Rural	Urban	Total
1	2	3	4
Cultivators	325686 (65.0)	7867 (2.1)	333553 (37.9)
Agricultural labourers	169689 (21.9)	5308 (1.4)	114997 (13.0)
Live stock, Forestry, hunting, plantation and allied activities	3216 (0.6)	1932 (0.5)	5048 (0.6)
Mining and Quarrying	54 (—)	168 (—)	222 (—)
<i>Manufacturing:</i>			
(i) Household industry	1665 (2.3)	15957 (4.2)	27622 (3.1)
(ii) Other than household	10227 (2.3)	114063 (30.1)	124290 (14.1)
Construction	2289 (0.5)	4577 (1.2)	6866 (0.8)
Trade & commerce	10942 (2.2)	79452 (20.9)	90394 (10.3)
Transport storage and communication	2783 (0.6)	32561 (8.6)	35344 (4.0)
Other services	24368 (4.9)	1117646 (31.0)	141832 (16.1)
Total	500919 (100.0)	379249 (100.0)	880168 (100.0)

1.22 As might be expected there is a sharp contrast in the industrial distribution of workers between rural and urban areas. Since Kanpur is predominantly an agricultural area 2/3rd of the workers in rural areas in 1971 were cultivators while another 1/5th of the total workers were engaged as agricultural labourers. Only 13.1 per cent of the total rural workers were in activities such as manufacturing, trade and commerce, construction, etc. On the other hand only a negligible proportion of the total workers in urban areas (3.5 per cent) were active as cultivators and agricultural labourers. Manufacturing activity is less important in rural areas. Rural workers were engaged approximately in equally household and other than household manufacturing industries. The highest proportion of workers were engaged in manufacturing in case of urban areas. Nearly 1/3rd of the total urban workers were engaged in non-household manufacturing industries mostly factories which are concentrated in the urban areas. Trade & Commerce, transport, storage and communication and other services accounted for more than 60 per cent of the total workers in the urban areas due to concentration of administrative offices, medical and educational institutions and public utility services.

1.23 **Occupational pattern of workers.**—*The occupational pattern of workers according to 1961 census is given in the following table:—

TABLE 10
Occupational distribution of workers according to 1961 census-non-agricultural sector

Occupational Group	Percentage distribution of workers		
	Rural	Urban	Total
Professional, technical and related workers	4.4	5.2	5.0
Administrative, executive & managerial workers	1.4	9.5	7.6
Clerical and related workers	2.2	7.6	6.3
Sales workers	11.0	15.9	14.9
Farmers, fisherman, hunters, loggers & related workers	10.5	1.2	3.4
Workers in transport and communication occupations	3.7	6.0	5.5
Craftsmen, Production Process workers and labourers not elsewhere classified	53.7	46.1	47.9
Service sport and recreation workers	10.8	6.8	7.6
Workers not classified by occupation	2.3	1.7	1.8
Total	100.0	100.0	100.0

*Data for 1971 are not available

1.24 **Non-workers.** All those who were not actively engaged in any economically productive work were basically classified as non-workers during 1971 census operations. The total number of non-workers in Kanpur district was 21.16 lakhs of which 8.12 lakhs were males and 13.04 lakhs were females. The number of non-workers in areas classified as rural in 1971 was 12.13 lakhs as compared to 9.03 lakhs in the urban areas. The following table gives the rural and urban composition of non-workers during 1971.

TABLE 11
Non-workers in rural and urban areas

	No. of non-workers	Percentage to total
Rural	1212982	57.3
Urban	903082	42.7
Total	2116064	100.0

1.25 The number of non-workers according to seven main categories into which they have been broadly classified is given in the following table. A person irrespective of age and whether educated or not, if he reports that he is not engaged in any other activity but is seeking work will come under the last category namely others.

TABLE 12
Non-workers 1971

(Figures in brackets indicate percentage to total)

Category	No. of non-workers		
	Male	Female	Total
	1	2	3
Full-time students	298531 (36.8)	151262 (11.6)	449793 (21.3)
Household duties	2212 (0.3)	676388 (51.9)	678600 (32.1)
Dependents and infants	476024 (58.6)	463537 (35.5)	939561 (44.4)
Retired, retirees and persons of independent needs	9384 (1.2)	1161 (0.1)	10,545 (0.5)
Beggars and Vagarants etc.	2102 (0.3)	10406 (0.8)	12508 (0.6)
Inmates of penal, mental and charitable institutions	521 (—)	240 (—)	761 (—)
Others	22791 (2.8)	1,505 (0.1)	24,296 (1.1)
Total	811565 (100.0)	1304499 (100.0)	2116064 (100.0)

1.26 **Establishments and Employment.**—Under the 1971 census operation, an attempt has also been made to identify all the establishments and employment in them. According to the 1971 census, an establishment is a place where goods are produced or manufactured not solely for domestic consumption or where servicing and/or repairing is done such as factory, workshop or household industry or servicing and/or repair workshop or a place where retail or wholesale business is carried on or commercial services are rendered or an office, public or private or a place of entertainment or where educational, religious social or entertainment services are rendered. It is necessary that in all these places one or more persons should be actually working. Thus an establishment will cover manufacturing, trade and other establishments where people work. The statistics relating to the distribution of establishments by three broad types, viz., (i) Manufacturing, processing or servicing establishments, (ii) Trade or business, establishments and (iii) Other establishments classified according to Government or quasi-governments private, co-operatives is given at Appendix II Part A. The following table gives the break-up of rural and urban establishments into government/quasi-government, private and cooperatives:

TABLE 13

	Rural	Urban	Total
(a) Government/quasi government	2,354	1,879	4,233
(b) Private	20,485	38,821	59,306
(c) Co-operatives	110	139	249
Total	22,949	40,839	63,788

Establishments have also been classified according to various sizes of employment. Appendix-II Part B gives size-wise number of establishments and employment in them separately for manufacturing, trade & commerce and others, while the following table contains the summary:

TABLE 14

Size of establishment	Units	Number of persons employed
1. Less than 5 workers	57,278	95,602
2. 5—9 workers	4,094	24,852
3. 10 and above workers	2,202	1,46,598
4. Persons unspecified	214	..
Total	63,788	2,67,052

CHAPTER II

EMPLOYMENT 1974

2.1 The total number of establishments identified in Kanpur district as on 31-3-1974 (i.e., date of enquiry) both in public and private sector, was 8291 which constituted the frame of establishments for the purpose of this enquiry. This was constructed by bringing up-to-date Employers' Register maintained in the Employment Exchange under the E.M.I. programme, on the basis of the information available from other sources and by conducting comprehensive street surveys of all cities, towns and villages in the district. The frame of establishments by size class and response achieved is given in the following table

TABLE 15

Number of establishments

Type of establishments and size	Number	Percentage response
1. Public sector	509	100
2. Private Sector:		
(i) Bigger establishment employing 10 or more workers	2,670	100
(ii) Smaller establishments with 5 to 9 workers	5,112	100
Total	8291	100

2.2 Out of the total number of 8,291 establishments existing as on 31-3-1974 accounting for total employment of 2,73,450, as many as 4,240 establishments were those which came up during the last seven years period from 1967-1974, while the remaining 4,051 came in existence in 1966 or earlier. The relevant data is contained in the Appendix IV.

2.3 Among the ex-establishments that came up during the period 1967-74 as many as 193 were in public sector contributing employment to the extent of 23,734 and 4,047 establishment were in private sector, accounting for employment of 44,160.

2.4 The total employment in all establishments that were in existence as on 31-3-74 was 2,73,450 as against an employment of 2,07,084 in them in March, 1967. Of the total employment in 1974 public sector and private sector accounted for 1,28,472 (47.0%) and 1,44,978 (53.0%), respectively.

2.5 **Employment by Industry :—**The following table gives the total employment in 1974 by broad industrial division:

TABLE 16

Employment by Industrial Division

Industrial Division	Employment in 1974	Percentage to total
Agriculture & Livestock	1,446	0.5
Manufacturing	1,32,533	48.5
Construction	5,503	2.0
Electricity, Gas, Water & Sanitary Service	6,940	2.5
Trade & Commerce	25,852	9.5
Transport, Storage & Communication	16,976	6.2
Services	84,200	30.8
Total	2,73,450	100.0

(Refer:—Appendix-VII-Employment Growth by Economic Activity.)

2.6 . Of the total employment of 2.73 lakhs in 1974 nearly half (48.5%) was in manufacturing followed by services (30.8%), trade & Commerce (9.5%), Transport, Storage & Communication (6.2%), Electricity, gas, water & Sanitary services (2.5%) and construction (2.0%). Agriculture, Livestock constituted only small proportion of the total employment, which is due to the fact that the employment in this sector is not covered under the survey. The employment of 1,446 in this sector in 1974 relates mostly to government establishments which are dealing with the development of agriculture & Livestock in the area.

2.7 **Industries of area.** Among manufacturing industries, cotton spinning and weaving in mills (42,721), servicing and repairing of motor vehicles (5,187); Jute spinning & weaving (4,469) wool spinning & weaving (4,443); shoes & other leather foot-wears (4,016); smelting, refining & re-rolling of iron & steel (3,781); sundry hardwares (3,776); turpentine, synthetic, resin & plastic product (3,730); aeroplanes & aero-engines (3,524); textile garments (3,410); curring, tanning & finishing of hides (2,878); carpets & daries (2,526); printing & publishing (2,066); and rice, atta & flour (1,788) constituted the bulk of employment.

2.8 **Services**—Within the services sector, employment in educational services—non-technical (23,794); administrative services in Central Government (21,309); administrative services in State Government (13,756); public health & medical services (8,358); educational services—technical (4,860); administrative services in Quasi-Government & local bodies (4,150) and hotels & restaurants (3,414) accounted for the bulk of employment.

2.9 **Employment by occupations**—Occupational break-up of employees at broad divisional level is given in the table:

TABLE 17
Employment by Occupational Division

Occupational Division	Employment in 1974	Percentage to total
I. Professional, technical & related workers	32,328	11.8
(i) Scientists, engineers & technologists	6,380	2.3
(ii) Doctors, medical & health technicians	3,058	1.1
(iii) Teachers	19,385	7.1
(iv) Accountants, social scientists & other professionals	3,505	1.3
II. Administrative, executive & managerial workers	16,830	6.2
III. Clerical & related workers (excluding unskilled office workers)	37,398	13.7
IV. Sales workers	6,002	2.2
V. Service workers (excluding watchmen, chowkidars, cleaners, sweepers & watermen)	12,609	4.6
VI. Farmers, loggers & related workers (excluding agricultural & plantation labourers)	1,653	0.6
VII. Production & related workers and transport equipment operators (excluding labourers)	120,003	43.9
(i) Production & related workers	115988	42.4
(ii) Transport equipment operators	4015	1.5
VIII. Unskilled workers	46,627	17.0
Total	2,73,450	103.0

(Refer: Appendix VIII—Employment Growth by Occupation.)

2.10 Due to preponderance of manufacturing industries in the area about 56% of the total employed labour force in 1974 were found in two occupational categories, viz.,

- (i) production & related workers and transport equipment operators (1,20,003), and
- (ii) professional & technical workers (32,328).

Clerical & related workers (37,398) were also significant followed by administrative, executive & managerial workers (16,830); service workers (12,609); sales workers (6,002); and farmers & related workers (1,653). Unskilled workers (46,627) formed 17.0 per cent of the total.

2.11 **Women employment.**—Of the total of 2,73,450 employees in Kanpur district in March 1974 a many as 13,146 were women employees representing 4.8 per cent of the total employment. The following table gives the percentage of women employment to the total in the rural and urban areas separately for public and private sectors.

TABLE 18

Employment in Rural and Urban areas

Sector	Rural			Urban			Total		
	Women	Total	Percent- age of women to total	Women	Total	Percent- age of women to total	Women	Total	Percent- age of women to total
Public	18	915	0.2	6,886	1,27,557	5.4	6,904	1,28,472	5.4
Private	65	4,243	1.5	6177	1,40,735	4.4	6,242	1,44,978	4.3
Total	83	5158	1.6	13,063	2,68,292	4.9	13,146	2,73,450	4.8

2.12 The more important features that emerge from the above table are:—

- (i) Almost all the women employees 99.4% were working in urban areas and only a small proportion (0.6%) were in rural areas.
- (ii) The percentage of women employees to total in establishments located in urban areas, both in the public and private sectors was much higher than the corresponding proportions for rural areas. This was also true for public and private sector taken together.
- (iii) In the public sector women constituted 5.4% of the total employment as against 4.3% in the private sector. In absolute number also the women employees were more in the public sector.

2.13 The following table shows proportion of women employees to total employees in March 1974 by broad industrial divisions:

TABLE 19

Women employed by industrial divisions

Industrial Division	Women employees	Total employment	Percentage of women to total in each division
Agricultural and Live-stock	3	1,446	0.20
Manufacturing	1991	1,32,533	1.50
Construction	7	5503	0.13
Electricity, gas, water & sanitary services	38	6940	0.55
Trade & Commerce	212	25852	0.82
Transport, storage & communication	349	16976	2.05
Services	10,546	84200	12.52
Total	13146	273450	4.80

2.14 It would be seen that bulk of the women employees were engaged in services (10,546) followed by manufacturing (1991); transport, storage & communication (349) and trade & commerce (212). Further

details of women employees in the two major industries divisions (*voiz.* services and manufacturing) where bulk of women were employed are given in the following table:

TABLE 20
Women employment in manufacturing & services

Description of Industry	No. of women employees as on 31-3-1974
<i>Services</i>	<i>10546</i>
Administrative services in Govt.	485
Education (Technical)	210
Education (Non-Technical)	7174
Public Health and Medical Services	2631
Community	25
Others	21
<i>Manufacturing</i>	<i>1991</i>
Bidi, Jarda & Tobacco products	23
Cotton, spinning & weaving in mills	21
Cotton weaving in powerlooms	73
Cotton weaving in handlooms	391
Cotton cordage, rope & belts	29
Jute spinning & weaving and other jute products	23
Wood spinning and weaving	29
Carpets and daries	919
Fertilizer	22
Medicines, pharmaceuticals & cosmetics	49
Electronic equipments such as radios, microphones & tape recorders	99
Aeroplanes & aero-engines	21
Others	292

2.15 The table below indicates proportion of women to total employees in March, 1974 by broad occupational division:

TABLE 21
Women employment by occupational division

(Figures in brackets indicate percentage to total)

Occupational Division	Women employees as on 31-3-74	Total employment as on 31-3-74	Percentage of women employees to total in each occupational division
I. Professional, technical and related workers	7200	32,328	22.3
(i) Scientists, engineers & technologists	54.8 26 (0.2)	6,380	
(ii) Doctors and medical & health technician	967 (7.4)	3,058	
(iii) Teachers	6072 (46.2)	19,385	
(iv) Accountant, Social scientists & other professionals	135 (1.0)	223 3,505	
II. Administrative, executive & managerial workers	160 (1.2)	16,830	1.0
III. Clerical & related workers (excluding unskilled office workers)	741 (5.6)	37,398	2.0
IV. Sales workers	11	6,002	0.2
V. Service workers (excluding watchmen, chowkidars, cleaners, sweepers & watermen)	978 (7.4)	12,609	7.8
VI. Farmers, Loggers and related workers (and excluding agricultural & plantation labourers)	1 (—)	1,653	
VII. Production & related workers, and transport equipment operators (excluding labourers)	1749 (13.3)	1,20,003	1.5
(i) Production & related workers	1749	1,15,988	
(ii) Transport equipment operators	..	4015	
VIII. Unskilled workers	2306 (17.6)	46,627	4.9
Total	13146	2,73,450	4.8

(Refer: Appendix VI—Women Employees by Occupations in 1974 and Appendix VIII—Employment growth by occupations.)

2.16 Women represented 4.8% of the total number of employees as on March 1974. Their proportion to total in each division varied from 0.2% for sales workers to 22.3% for professional and technical workers. The percentage of women to total employees was higher than that for the district (4.8) in case of professional & technical categories of workers (22.3%) service workers (7.8%) and unskilled workers (4.9%).

2.17 Professional and technical women workers accounted for 54.8% of the total women employed in 1974 followed by production and related workers and transport equipment operators (13.3) service worker (7.4%); clerical & related workers (5.6%) and administrative, executive & managerial workers (1.2%) Unskilled women workers constituted 17.6%.

2.18 Some of the important occupations in which women employees are concentrated are as follows:

TABLE 22

Women employment in selected Occupations

Occupation	Women employment as on 31-3-1974
Physicians and surgeons (Allopathic)	86
Nurses	433
Mid-wives & health visitors	276
Nursing & midwifery attendants	117
Librarians, archivists & curators	13
Social welfare workers	101
Teachers, University & Colleges	261
Teachers—Middle & Primary Schools	4,133
Teachers—Higher Secondary & High Schools	1,112
Teachers, crafts & others	566
Working proprietors, Directors & Managers, Wholesale & retail trading	64
Working proprietors, Directors & Managers manufacturing	63
Office Assistants	34
Stenographers and Stenotypists	42
Typists & tele-typists	34
Bank & ledger clerks	37
Clerks	248
Telephone & Telegraph operators	281
Maids & related house-keeping service workers	937
Chemical processors & related workers	37
Spinners & winders	1359
Electrical fitters and electrical & electronic equipment assemblers	80

Refer: Appendix VI—Women Employees by occupation in 1974.

2.19 A comparative study of the occupational profile of employed women labour force in 1974 with the total work force has revealed the following fields in which women workers were predominant; (i) Nurses; (ii) Midwives; (iii) Health Visitors; (iv) Teachers—Infant schools; (v) Family Planning organisers, and (vi) Maids and related house-keeping service workers.

2.20 **Employment, in establishments located in rural areas.** Out of the total of 8291 establishments that were identified under the survey in the district of Kanpur in 1974, only 406 or 4.9 per cent were located in areas classified as rural according to 1971 census. These establishments accounted for an employment of 5.2 thousand in 1974 as against 2.6 thousand in 1967. Of the total employment of 5.2 thousand in 1974, services accounted for an employment of (2.8 thousand) followed by manufacturing (17.9 thousand) and trade & commerce (0.3 thousand).

2.21 **Seasonal employment.** In addition to regular employment discussed earlier, seasonal worker were also engaged. The minimum number of seasonal workers employed on single day was reported to be 6.8 thousands as against the maximum of 10.1 thousand. The following table indicates the industries in which the seasonal workers were employed.

TABLE 23
Seasonal employment by Industry

Industry	Season	Employment	
		Minimum	Maximum
Manufacture of bricks & tiles	Nov.—June	4,945	7,018
Leather & leather work	Nov.-June	836	1,261
Milling, dehusking etc.	Nov.-June	615	1,059
Production of edible fats & oils	Feb.-July	266	516
Production of ice & candees	Feb.-Oct.	120	247
	Total	6782	10,101

2.22 Analysing occupation-wise seasonal employees, the maximum number of persons were employed in production and related work. The following are the occupations where seasonal workers were employed.

TABLE 24
Seasonal employment by occupation

Occupation	Employment		
	Minimum	Maximum	
Clerical	3	3	
Sales	27	61	
Tanners & fell mongers	155	227	
Grain millers & parchers	315	590	
Crushers & pressers—oil seeds	39	68	
Brewers & aerated water makers	26	64	
Bricks & Tiles—moulders & kilnmen	47,39	6,676	
Others	111	214	
Unskilled	1,367	2,198	
	Total	6782	10101

CHAPTER III

EMPLOYMENT GROWTH

3.1 Wage and salaried employment (number of regular employees) went up from 2.07 lakhs in 1967 to 2.73 lakhs in 1974, thereby showing an annual rise of 4.6 per cent. The employment is likely to rise further at an annual rate of 3.9 per cent and is expected to reach 3.27 lakhs by 1979. During the period 1967-79 the annual growth rate of employment works out to 4.8 per cent.

3.2 **Growth components.**—The components which constitute to the anticipated rise of 0.53 lakhs during 1974-79 are:

Components	Anticipated growth (in thousands)	Major industries
I. Employment generated as a result of expansion of existing establishments including manpower contents of the plan schemes.	19.0	Rice; atta, flour; bakery products; cotton weaving in handloom; carpets & daries; currying & tanning of hides/skins; smelting, refining & re-rolling of iron and steel; iron & steel furniture; aluminium products; sundry hardwares; motor vehicles, engine parts; repairing & servicing of motor vehicles; generation & transmission of electric energy; banking; telephone communication; educational services and public services in central and state government.
II. Employment expected to be generated in new establishments currently in blue-print stage.	8.8	Sugar; cotton dyeing; bleaching; cotton cordage, rope & belts; misc. textile products; leather products; basic industrial chemicals; turpentine, synthetic, resin & plastic; enamelling, galvanishing & welding; summary hardware electric fans & lamps; electronic equipments; scientific, medical & surgical instruments construction; scientific services in research institutions; public health & medical services and community services.
III(a). Employment projected for segments marked by uniform growth pattern in private sector establishments employing 10 or more workers.	11.8	Food stuff; textiles; wood & wooden products; printing and publishing; leather products; rubber products; basic chemicals; bricks & tiles; iron & steel; iron & steel furniture; sundry hardwares, motor vehicles & engine parts including servicing; machinery & electrical equipments; banking; transporting by motor vehicles; educational services; recreation services and hotels & restaurants.
III(b) Employment projected for smaller private establishments employing 5-9 workers.	13.9	Livestock; manufacturing including repairing & servicing units; trading units transport & storage and services.

3.3 **Sectoral growth.** The employment in public sector which constituted 50.2 per cent of the total employment in 1967 increased at an average annual growth rate of 3.4 per cent upto 1974 as against an anticipated yearly growth rate of 2.2 per cent by 1979. As against this, private sector employment which formed 49.8 per cent of the total employment in 1967, is likely to maintain an average growth rate of 5.4

per cent per annum during 1974-1979 as against the actual yearly growth rate of 5.8 per cent during 1967-1974. The continuous rising trend in private sector is mainly due to the impressive development of a large number of small, medium and large industries located in this area. The share of private sector in the total employment has also been gradually increasing from 49.8 per cent in 1967 to 53.0 per cent in 1974 and 56.4 per cent in 1979. This is attributed to the comparing higher growth rate for the private sector. The change in employment in public and private sector could be seen from the following table:

TABLE 25
Employment growth

(Figures in brackets indicate percentage to total)

Sector	Employment			Annual percentage growth rate during		
	1967	1974	1979	1967-74	1974-79	1967-79
Public	103978 (50.2)	128472 (47.0)	142570 (43.6)	3.4	2.2	3.1
Private	103106 (49.8)	144978 (53.0)	184359 (56.4)	5.8	5.4	6.5
Total	207084 (100.0)	273450 (100.0)	326929 (100.0)	4.6	3.9	4.8

3.4. **Employment by economic activity**—The following table gives changes in the level of employment industrial divisions recorded between 1967-1974 and the anticipated rise during the next five by years.

TABLE 26
Employment by Industrial Divisions

Industrial Division	Employment			Increase (+)		Decrease (—)	
	1967	1974	1979	1967-74 Number	% per year	1974-77 Number	% per year
Agriculture, livestock	828	1446	1697	+618	+10.7	+251	+3.5
Manufacturing	101837	132533	163845	+30696	+4.3	+31312	+4.7
Construction	3930	5503	5435	+1573	+5.7	-68	-0.2
Electricity, gas, water & sanitary services	5092	6940	8140	+1848	+7.2	+1200	+3.5
Trade & Commerce	15218	25852	31,579	+10634	+10.0	+5727	+4.4
Transport, storage & communication	12234	16976	19862	+4742	+5.5	+2886	+3.4
Services	67945	84200	96371	+16255	+3.4	+12171	+2.9
Total	207084	273450	326929	+66366	+4.6	+53,479	+3.9

Refer: Appendix VII—Employment growth by Economic Activity.

3.5 Substantial growth in employment during the last seven years in terms of absolute number was recorded in manufacturing (30,696), followed by services (16,255), trade & commerce (10,634), transport, storage & communication (4,742), electricity, gas, water & sanitary services (1,848) and construction (1573). During the next five years, manufacturing is expected to show a rise of (31,312) followed by services (12,171), trade & commerce (5727), transport, storage & communication (2,886) and electricity gas, water & sanitary services (1,200).

3.6 Although increases in employment for the next five years by 1979 have been anticipated in all the industrial divisions except construction (where there is a fall), however the annual percentage growth is not of the same order as revealed between 1967-74. Only in case of manufacturing industries the annual percentage growth during 1974-79 (4.7%) is expected to be slightly more than the actual annual growth recorded between 1967-74 (4.3%). The anticipated yearly growth rates during 1974-79 in all other activities are expected to be less than the corresponding actual ones recorded during 1967-74. The agriculture and livestock is expected to grow at a rate of 3.5% per annum during 1974-79 as against the significant yearly growth rate of 10.7% recorded between 1967-74. The likely annual rates of growth during 1974-79 in electricity, gas, water and sanitary services and Trade & Commerce are almost half of the actual growth rates recorded during 1967-74. The anticipated growth rate in services (2.9%) is expected to be slightly less than the actual growth rate of 3.4% recorded during 1967-74. The activities of transport storage and communication which recorded 5.5% annual growth rate during 1967-74 is likely to rise further at the rate of 3.4 per cent per annum.

3.7 **Manufacturing.**—The employment growth in selected important industries, which together account for about three-fourths of the total employment under manufacturing in 1974, is given in the following table:

TABLE 27

Employment growth in selected industries

	1967	Employment 1974	1969	Increase (+)Decrease 1967-74	1974-79
Rice, atta, flour	880	1788	2673	908	885
Bakery products	492	1216	1712	681	539
Edible fats & oils	710	1216	1658	506	442
Sweet-meat & condiments	423	855	1198	432	343
Cotton spinning & weaving in mills	42990	42721	42721	269	..
Cotton weaving in powerloom	310	621	969	311	348
Cotton weaving in handloom	953	1254	1803	301	549
Cotton cordage, rope & belts	441	70	1088	259	388
Jute spinning & weaving & other jute products	3369	4469	4482	1100	13
Wool spinning & weaving	3372	4443	4443	1071	..
Carpets & daries	1936	2526	3460	590	934
Textile garmetns	1226	3410	5312	2184	1902
Sawing & planing of wood	492	1144	1748	652	604
Printing & Publishing	1206	2066	2841	860	775
Currying, tanning & finishing of hides	2001	2878	3906	877	1028
Shoes & other leather foot-wear	862	4016	4686	3154	670
Basic industrial chemicals	687	999	1403	312	404
Fertiliser	..	1233	1313	1233	80
Medicines, pharmaceuticals & cosmetics	614	897	1231	283	334
Turpentine, synthetic, resin & plastic products	2217	3730	4530	1513	800
Bricks & tiles	283	874	1458	591	584
Smelting, refining re-rolling of iron & steel	3193	3781	4995	588	1214
Iron & steel furniture	616	731	1368	115	637
Metal products such as tin can	506	936	1539	430	603
Sundry hardwares	1933	3776	6583	1843	2807
Agricultural implements & oil engines etc.	583	1317	1984	734	667
Electric lamps and fans	399	766	1491	367	725
Repairing & servicing of motor vehicles	3713	5187	6657	1474	1470
Aeroplanes & aeroengines	2249	3524	3524	875	..

(Refer: Appendix VII—Employment growth by Economic Activity)

3.8 Industries such as cotton weaving in powerloom; cotton weaving in handloom; cotton cardage rope & belts; carpets & daries; currying, tanning & finishing of hides; basic industrial chemicals; medicines, pharmaceuticals & cosmetics; smelting, refining & re-rolling of iron & steel; iron & steel furniture; metal products such as tin cans; sundry hardwards and electric lamps & fans are likely to pick up at a faster rate by 1979 as compared to actual increases recorded during the past seven years i.e., 1967-74. Increases of the same magnitude have been noticed during the past seven years and the next five years in respect of rice, atta and flour; sawing & planing of wood; printing & publishing; bricks & tiles; agricultural implements & oil engines etc., and repairing & servicing of motor vehicles. Industries which have shown downward trend in the growth during 1974-79, as compared to 1967-74 are bakery products; edible fats & oils; sweetmeat & condiments; Jute spinning & weaving and other jute products; shoe & other leather

footwear; textile garments; fertilisers; and turpentine, synthetic, resin & plastic products. The employment in 1979 is expected to be the same as in 1974; for the three industries of cotton spinning & weaving in mills; wool spinning & weaving and aeroplanes & aero-engines. They have however shown increases during 1969-74.

3.9 Services.—Administrative services which recorded a rise of 4.6 thousand between 1967-1974 are likely to gain by another 4.3 thousand during the next five years. Educational services (non-technical) which recorded a rise of 6.3 thousand between 1967-1974 are likely to gain by 3.8 thousand only by 1979. Medical & health services are also expected to show gains during the next five years. Hotels & restaurants which recorded a rise of 1.8 thousand between 1967-1974, are likely to gain by another 1.6 thousand during the next five years.

TABLE 28
Employment growth in services

Category of service	Employment			Increase	
	1967	1974	1979	1967-74	1974-79
Administrative services in govt., quasi-govt. & local bodies	34579	39215	43559	4636	4344
Educational services (technical)	3715	4860	5380	1145	520
Educational services (non-technical)	17542	23794	27615	6252	3821
Scientific services & research Institutions	1046	1322	1467	276	145
Public, health & medical services	7329	8358	8900	1029	542
Community services	863	1189	1808	326	619
Recreation services	513	755	957	242	202
Hotel and restaurants	1600	3414	4976	1814	1562
Others	758	1293	1709	535	416
Total	67945	84200	96371	16255	12171

(Refer: Appendix VII—Employment growth by Economic Activity)

3.10 Shift in the industrial disposition of the employed labour force.—Although, the increase in employment recorded between 1967-74 and the anticipated rise during next five years by 1979 has been of different orders for various industries, the relative position of all industries according to employment in 1979 is likely to be the same as it was in 1974 and 1967. The share contributed by services which was 32.8% of the total employment in 1967 became 30.8% in 1974 and is expected to reduce further to 29.5% by 1979. The gain has been in trade & commerce which is likely to constitute 9.6% of total employment in 1979 as compared to 9.5% in 1974 and 7.3% in 1967. The proportion of employment in manufacturing industries showed a marginal decrease from 49.2% in 1967 to 48.5% in 1974. An increase in their proportion has however been anticipated by 1979 and are expected to constitute 50.1 per cent of the total employment. The relevant data are contained in the following table:—

TABLE 29
Industrial composition of employees

Industrial division	Percentage of employees to total		
	1967	1974	1979
Agriculture, livestock	0.4	0.5	0.5
Manufacturing	49.2	48.5	50.1
Construction	1.9	2.0	1.7
Electricity, gas, water & sanitary services	2.3	2.5	2.5
Trade & commerce	7.3	9.5	9.6
Transport, storage & communication	5.9	6.2	6.1
Services	32.8	30.8	29.5
Total	100.0	100.0	100.0

3.11 **Employment growth by occupations.**—The following table shows by broad occupational divisions changes in employment between 1967-1974 and 1974-79:

TABLE 30
Employment by occupational divisions

Occupational Division	Number of Employees			Increase	
	1967	1974	1979	1967-74	1974-79
1	2	3	4	5	6
I. Professional, technical & related workers	24123	32328	39031	8205	6703
(i) Scientists, engineers & technologists	4662	6380	7589	1718	1209
(ii) Doctors and medical & health technicians	2401	3058	3466	657	408
(iii) Teachers	14636	19385	23866	4749	4484
(iv) Accountants, social scientists & other professionals	2424	3505	4110	1081	605
II. Administrative, executive & managerial workers	9479	16830	22317	7351	5487
III. Clerical & related workers (excluding unskilled office workers)	27398	37398	42271	10000	4873
IV. Sales workers	3280	6002	7915	2722	1913
V. Service workers (excluding watchman, chowkidars' cleaners, sweepers & watermen)	7563	12609	14445	5046	1836
VI. Farmers, loggers & related workers (excluding agricultural & plantation labourers)	802	1653	1922	851	169
VII. Production & related workers and transport equipment operators (excluding labourers)	96461	120003	143488	23542	23485
(i) Production & related workers	93581	115988	139055	22407	23067
(ii) Transport equipment operators	2880	4015	4433	1135	418
VIII. Unskilled workers	37978	46627	55540	8649	8913
Total	207084	273450	326929	66366	53479

(Refer: Appendix VIII—Employment Growth by occupation)

3.12 Certain highlights of occupational composition of employees as obtained in the past, present and future are given hereunder:—

I. *Professional & Technical Workers.*

(a) *Scientists, engineers & technologists.*—The number of such persons recorded an actual increase of 1718 during 1967-1974, and are likely to gain further by 1209 during the next five years. Chemists civil engineers, electrical engineers, mechanical engineers, draughtsman and technicians—mechanical engineering are showing an increasing trend.

(b) *Doctors and medical & health technicians.*—These workers recorded an increase of 657 during the previous seven years and are likely to increase by another 408 during next five years.

(c) *Teachers.*—As against an actual rise of 4749 recorded between 1967-1974, their number is expected to rise further by 4481 during the next five years.

(d) *Accountants, social scientists and other professional workers.*—These workers recorded an increase of 1081 during the last seven years and are likely to rise by 605 between 1974-1979.

II. *Administrative, Executive and Managerial workers.*—The number of such persons rose from 9.5 thousand in 1967 to 16.8 thousand in 1974, and is likely to rise further to 22.3 thousand by 1979. A phenomenal increase is noticed among working proprietors/partners.

III. *Clerical & related Workers.*—The number of such persons who has recorded an actual growth of 10.0 thousand during 1967-1974 is expected to increase by another 4.9 thousand by 1979.

IV. *Sales workers.*—These workers recorded an actual increase of 2722 during 1967-1974 and are likely to gain further by 1913 during the next five years.

- V. *Service Workers*.—The service workers, whose number in 1967 was 7563 rose to 12609 in 1974 and is likely to rise further to 14,445 by 1979. Among them cooks, bearers, waiters and launders are indicating substantial growth.
- VI. *Farmers, loggers and related workers*.—A small increase of 269 during 1974—1979 has been anticipated as against an increase of 851 persons during the past seven years.
- VII. *Production and related workers and transport equipment operators*—
- (a) *Production and related workers*.—The number of production & related workers is likely to increase by 23.1 thousand during the next five years (1974-1979) as against an actual rise of 22.4 thousand recorded during the past seven years. The marked upward trend is mainly noticeable in metal rolling mill workers (250), moulders & core makers (315), wood sawyers & related workers (280), chemical processors (386), spinners & winders (782), weavers handloom (373), carpet & daries weavers (550), tanners & fellmongers (399), grain millers & parchers (538), bakers & confectioners (794), tailors & dress makers (882), pattern makers & cutters (517), sewers & embroiders (390), shoe makers & repairers (415), carpenters (336), blacksmiths (332), machinists (436), turners & lathe operators (589), watch, clock & precision instrument makers (454), fitters (460), motor vehicle mechanics (528), electricians (420), telephone & telegraph installers & repairmen (286), electric linemen & cable jointers (494), welders & flame cutters (553), plastic product makers (519), and printing pressmen (306).
- (b) *Transport equipment operators*.—This category of workers are likely to record an increase of four hundred persons during the next five years as against an actual gain of 1.1 thousand recorded during last seven years.

3.13 **Occupational Shift**—Percentage composition of employees in different occupational groups is given in the following table:

TABLE 31
Occupational distribution

Occupations	Percentage composition of employees		
	1967	1974	1979
Profession, technical & related workers	11.7	11.8	11.9
Administrative, executive & managerial workers	4.6	6.2	6.8
Clerical & related workers	13.2	13.7	12.9
Sales workers	1.6	2.2	2.4
Service workers	3.6	4.6	4.4
Farmers, loggers & related workers	0.4	0.6	0.6
Production & related workers and transport equipment operators	46.6	43.9	43.9
Unskilled workers	18.3	17.0	17.1
Total	100.0	100.0	100.0

3.14 A decreasing trend in the proportion of employment to total is noticeable in case of production & related workers and transport equipment operators, as well as in case of unskilled workers during 1967-1974. As against these decreases an upward shift in the proportion of professional technical & related workers; administrative, executive & managerial workers; sales workers and farmers, loggers & related workers, have been noticed—the significant shift being in case of administrative, executive & managerial workers. Clerical and related workers who constituted 13.2% of the total in 1967, increased to 13.7% in 1974. Their proportion in 1979, however, came down to 12.9%. Similar phenomenon has also been observed in case of service workers whose proportion increased to 4.4% in 1979 from 3.6% in 1967, after touching 4.6% in 1974.

3.15 **Factors hindering existing production and/or expansion** Information about various factors hindering expansion or fuller utilisation of installed capacity was also obtained from manufacturing

industries in private sector. Financial assistance emerged as a common difficulty being experienced by most of the manufacturing industries. A brief resume of hindering factors faced by various industries is given below:—

Land

Rearing of Livestock
 Rice, atta, flour
 Tobacco products
 Cotton weaving in handloom & powerloom
 Carpets & daries
 Sawing & planing of wood
 Printing & Publishing of books
 Leather & leather products (including shoes)
 Turpentine, synthetic, resin & plastic products
 Sundry hardwares

Power/Finance

Rice, atta, flour
 Edible fats & oils
 Hydrogenated oils
 Cotton weaving in handloom & powerloom
 Carpets & daries
 Sawing & planing of wood
 Printing & Publishing of books
 Leather & leather products (including shoes)
 Chemical & chemical products
 Turpentine, synthetic, resin & plastic product
 Smelting, refining & re-rolling of iron & steel
 Smelting, refining & re-rolling of non-ferrous
 Metals and alloys
 Metal products such as tin cans
 Sundry hardwares
 Agricultural implements & oil engines
 Prime movers, boilers & road rollers
 Electric lamps and fans
 Repairing & servicing of motor vehicles

Raw material

Bakery products
 Cotton weaving in handloom & powerloom
 Carpets & daries
 Printing and publishing
 Turpentine, synthetic, resin & plastic products

Maida, sugar
 Raw cotton
 Raw cotton/wool dyes
 Paper, ink, films for block making
 Synthetic rubber, white raw rubber titanium dioxide; plastic grains; urea

Smelting, refining & re-rolling of iron & steel; iron & steel furniture, Metal products; Sundry heardwares, Agricultural implements & oil engines, Prime movers, boilers & road rollers; Electric lamps & fans, Bicycles & accessories.

CHAPTER IV

MANPOWER REQUIREMENTS

(A) MANPOWER CONTENTS OF THE PLAN SCHEMES

4.1 State planning unit of the Government of Uttar Pradesh has prepared the Kanpur district plan in consultation with the concerned district officials. Paramount importance has been given to the National Minimum Needs Programme while chalking out the district plans. The salient features of the National Minimum Needs Programme are as follows:—

- (i) To provide a Primary and middle school within a walking distance from each village *i.e.* 1.5 km in the case of primary school and 5 kms in the case of middle school;
- (ii) To provide one Primary Health Centre for each Community Development Block and one Sub-Centre for every 10,000 of population; provisions for upgradation of one in every four Primary Health Centres to the status of 30 bed rural hospital with specialised services in surgery, medicine obstetrics, gynaecology and anaesthesia;
- (iii) To ensure that at least 30—40 per cent of villages are electrified;
- (iv) To ensure drinking water to villages suffering from chronic scarcity or having to rely upon unsafe sources of water;
- (v) To provide roads for all villages with population of 1500 and above;
- (vi) Home-sites for rural landless; and
- (vii) Slum improvement and clearance.

4.2 All the establishments identified in the area were requested to estimate their future manpower requirements arising out of the normal expansion and future programmes (Part III(c) of AS-I—Appendix-I). The experience has, however, shown that all public sector establishments at the district level are normally not in a position to furnish future manpower needs as plans are finalised at the state level. In all such cases government officials at the state level concerned with the finalisation and implementation of schemes were contacted and specially designed questionnaires (AS-VIII-Appendix-I) was canvassed for the purpose of assessing manpower contents of the plan proposals included in the fifth plan of the area. This has been done mainly to arrive fairly accurate manpower estimates in respect of public sector establishments which otherwise are not in a position to gauge their future requirements properly. Industry-wise details of the figures thus arrived at through schedule AS-VIII are given below:—

TABLE 32

Industry-wise manpower requirements

Industry	Manpower require
Agriculture, Livestock forestry, fishing and hunting	117
Manufacturing	41
Electricity, gas, water and sanitary services	644
Transport, storage and communication	1,458
Services	1,194
Total	3,454

4.3 Following are some of the important details:

- (i) *Rural electrification.* It is proposed to electrify all the villages having population of more than 500 in this district. 996 villages are expected to be electrified during the fifth plan period.
- (ii) *Rural water supply.* Rural drinking water supply programme is accorded high priority in the minimum needs programme of this district. 71 villages are likely to get tank water facilities during the fifth plan period.

- (iii) *Transport and Communication*: The development of roads plays a vital role in the development of district and therefore it is proposed to increase the length of the roads from 849 kms. to 2.24 kms. Through this all the villages will be connected by roads having more than 100 population. Railway authorities are expected to establish motor repairs workshop (traction) during the fifth plan period.
- (iv) *Education*: In order to improve the educational facilities and to implement the policies laid down in the minimum needs programme, besides strengthening the existing educational institutions, it is proposed to open 113 primary schools, 66 junior high schools during the fifth plan period.
- (v) *Medical and Health*: It is proposed to open one Primary Health Centre in each development block having population of 14 thousand. In addition to that it is also proposed to open 40 allopathic, 29 Ayurvedic and 160 maternity centres during the fifth plan period in the district.

4.4 The Occupational-wise manpower requirements to implement various plan schemes referred to in para 8.2 above is given below:—

TABLE 32
Occupationwise manpower requirements

Occupations	Manpower requirements
Professional, Technical and related workers	1149
Administrative, executive and managerial workers	15
Clerical and related workers	687
Farmers, fishermen, hunters, loggers and related workers	50
Service workers	14
Production and related workers, transport equipment operators and labourers	1539
Total	3454

4.5 From the above table it may be seen that the largest component of manpower needs during the fifth plan period is that of production and related workers, transport equipment operators followed by professional, technical & related workers and clerical & related workers.

(B) OVERALL REQUIREMENTS

4.6 The Manpower needs have been built up on the basis of the following components:—

- (i) Employment growth—ibid chapter—III
- (ii) Replacement needs due to attrition in the employed work force—ibid Technical Notes para 8.
- (iii) Vacancies remaining unfilled as on 31-3-1974—ibid Technical Notes para 8.

4.7 **Manpower needs by occupational categories.**—The skilled requirements of the area by 1979 will be of the order of 76.7 thousands (excluding unskilled workers, who are likely to be of the order of 13.8 thousands) Following table gives manpower requirements by broad occupational categories:—

TABLE 34
Manpower needs by occupational categories

Occupation	Number	Percentage to grand total
I. <i>Professional, technical & related workers</i>	10907	12.1
(i) Scientists, engineers & technologists	2153	2.4
(ii) Doctors and medical & health technicians	986	1.1
(iii) Teachers	6778	7.5
(iv) Accountants, social scientists & other professionals	990	1.1
II. <i>Administrative, Executive & Managerial workers</i>	7246	8.0
III. <i>Clerical & related workers (excluding unskilled office workers)</i>	8952	9.9
IV. <i>Sales workers</i>	2513	2.8
V. <i>Service workers, (excluding watchmen, chowkidars, cleaners, sweepers & watermen)</i>	3150	3.5
VI. <i>Farmers, Loggers & related workers (excluding agricultural & plantation labourers)</i>	444	0.5
VII. <i>Production process & related workers and Transport Equipment operators (excluding labourers)</i>	43374	48.0
(i) Production & related workers	42526	47.1
(ii) Transport Equipment Operators	848	0.9
Total	76586	84.8
VIII. <i>Unskilled workers</i>	13821	15.2
Grand Total	90407	100.00

(Refer:—Appendix—IX—Manpower Requirements)

4.8 Of the total manpower needs, the requirements for production & related workers and transport equipment operators will be the largest (43.4 thousand) forming 48.0 per cent of the total. Professional and technical workers (10.9 thousand) come next being 12.1 per cent of the total, followed by clerical workers (9.0 thousand) forming 9.9 per cent of the total needs. Administrative executive and managerial workers (7.2 thousand) form only 8.0 per cent of the overall future requirements. The manpower needs of the area will be comparatively small for service workers (3.2 thousand) sales workers (2.5 thousand) and farmers loggers, & related workers (0.4 thousand) which form 3.5% 2.5% and 0.8% respectively of the total needs.

4.9 **Professional and Technical workers**-- The more important and crucial manpower needs among this category are:—

(i) <i>Scientists, Engineers & Technologists</i>	
Mechanical Engineers	220
Electrical Engineers	130
Civil Engineers	110
Chemical Engineers	50
Textile technologists	70
Chemists	330
Draughtsmen	200
Overseers—Civil Engineering	150
Technicians—Electrical & electronics	90
Technicians —mechanical engineering	340
Agricultural scientists	50
(ii) <i>Doctors and Medical & Health Technicians</i>	
Physicians & Surgeons allopathic	190
Nurses	210
Midwives & Health Visitors	50
Veterinary assistants	100
Pharmacists	100
Nursing & Midwifery attendants	110
Vaccinators & dressers	90
(iii) <i>Teachers</i>	
Middle & Primary School	4170
Secondary School	1250
University & College	1140
Crafts, Arts, drawing & other	220
(iv) <i>Accountants, Social Scientists & other Professionals</i>	
Accountants & Auditors	390
Librarians, Archivists & Curators	40
Composers & performing artists	170
Labour & social Welfare Workers	40
Laboratory attendants	190

4.10 Out of the total jobs likely to come up during the next five years, 460 will pertain to the three principal branches of engineering, namely civil, mechanical and electrical. The demand for chemists during the next five years is also likely to be sizeable. Among medical & health personnel, nurses; physicians & surgeon allopathic; midwife & health visitors veterinary assistants; vaccinators & dressers and pharmacists are going to be in greater demand. As a result of the launching of the minimum needs programme during fifth five year plan, teachers at all levels will be required in large number. The other demands which deserve special attention are accountants and auditors.

4.11 Production & Related Workers and Transport Equipment Operators.—Details of manpower requirements for production process workers are given in Appendix-IX. Requirements for some important occupations in this category are as follows:—

Category	Number
(i) <i>Production and related workers</i>	
Metal rolling mill operators	310
Moulders & core makers	450
Wood sayers & related wood processing workers	340
Chemical processors—other	470
Fibre preparers	1040
Spinners & winders—other	1600
Weaver—powerloom	1200
Weaver—handloom	450
Carpet & dari weavers	670
Tanners & fell mongers	700
Grain millers, parchers & related workers	640
Bakers, confectioners & sweet-meat makers	890
Tailors & dress makers	3300
Pattern makers & cutters	610
Sewers & embroiders	500
Shoe makers & repairers	480
Harness & saddle makers	1500
Leather goods makers	330
Carpenters	590
Blacksmiths	490
Tool makers & metal pattern makers	520
Machinists	1200
Turners & lathe operators	840
Metal grinders, polishers & tool sharpeners	430
Watch, clock & precision instrument makers (except electric)	480
Fitters	1570
Motor vehicle mechanics	640
Air craft engine mechanics	160
Millwright	160
Electricians	540
Telephone & telegraph installers & repairmen	300
Electric linemen & cable jointers	550
Welders & flame cutters	830
Sheet metal workers	220
Plastic product makers	600
Printing press-man	370
Checkers, testers, sorters, weighers & counters	410
Packers & labellers & related workers	620
(ii) <i>Transport equipment operators</i>	
Drivers—railway	60
Drivers—car	120
Drivers—bus	70
Drivers—truck	250
Drivers—cycle rickshaw	250

4.12 Among production & related workers substantial demand is expected for tailors & dress makers (3300); spinners & winders—other (1600); fitters (1570); harness & saddle makers (1500); weavers powerloom (1200); machinists (1200); fibre preparers (1040); turners & leather operators (840); welders & flame cutters (830); carpet & dari weavers (670); electric linemen & cable jointers (550); plastic product makers (600); electricians (540); carpenters (590); blacksmiths (490); moulders & core makers (450); weavers handloom (450); during next five years. Under transport equipment operators demand is expected to be generated for drivers—railways, car, bus & truck.

4.13 **Manpower requirements by educational level.**—Employers were also requested to furnish information about the educational & technical qualifications of workers likely to be in demand during the next five years. The following table shows the percentage break up of additional manpower requirements according to the level of education and technical qualifications for which information has been collected.

TABLE 35

Manpower requirements by educational level

Level of education	Percentage
Below Matric (including illiterates)	47.8
Matric and above but below graduate	10.5
Graduate and post-graduate—science, arts, commerce and law etc.	9.4
Professional and technical graduate & above in	
Engineering	1.6
Education	4.2
Other including medical	0.3
Diploma holder in Engineering and Technology	2.5
Recognised certificates (such as those issued by ITI and teachers training institute etc.)	23.7
Total	100.0

4.14 Slightly less than half of the total manpower needs during 1974-1979 will be for below matriculates including illiterates. This includes sizeable requirements for production & related workers for whom no formal institutional training or possession of a recognised certificate or diploma has been considered as an essential criteria for recruitment. The manpower needs in this case are normally being met through informal inplant, apprenticeship or institutional training organised by the establishments. Nearly one-fourth of the total jobs will be for recognised certificate holders which includes demand for primary and middle school teachers; production & related workers as well as para medical workers.

CHAPTER V

SELF-EMPLOYMENT

(A) RURAL AREAS

5.1 Information about self-employment in the non-agricultural activities in the rural areas was collected from a sample of 10 per cent of the villages in the district. Villages were selected on sample basis from each community development block. The sample was drawn on the basis of 1971 census data after listing the villages falling within each development block according to the descending order of population i.e. the name of the village which has the largest population in the block was put on the top, followed by villages with decreasing order of population. Every 10th village beginning with the first was taken up for the survey. This involved a study of 198 villages representing 14.0 per cent of the total rural population of the area.*

5.2 The information about the existing avenues of self-employment in non-agricultural activities was collected by organising systematic and comprehensive door-to-door survey of all the sampled villages to identify establishments in the size class 1-4 workers (including both wage paid employment as well as self-employment). The information about such aspects as nature of the activity of establishment, number of persons engaged in self-employment on full-time/part-time basis, difficulties faced and assistance needed, if any, was obtained during the course of the street survey in respect of each of the establishment so identified. After the completion of door-to-door survey, data was compiled and entered in item-II of village schedule AS-V (Annexure-I). Information about the additional opportunities of self-employment that could be created in the light of modernisation of agriculture, local produce and other resources expanding needs for maintenance and other services was then elicited by making enquiries from village elders, Government village officials, other knowledgeable persons who possess intimate knowledge of the respective village community. It is felt that these estimates would be fairly indicative of existing number of self-employed and the additional number of persons that could be absorbed as self-employed in the non-agricultural activities in the rural areas.

5.3 The survey revealed that 54.4 thousand persons were self-employed on full-time basis in 1974 in various non-agricultural activities. In addition 3.8 thousand persons were self-employed on part-time basis. Besides, 0.9 thousand seasonal workers were engaged at the peak of the season as against 0.5 thousand at the slack season. Additional opportunities for self-employment could be created to the extent of 50.1 thousand persons in the light of modernisation of agriculture, local produce, other resources, expanding needs for maintenance and other services.

5.4 The fields in which persons are currently self-employed and fresh employment opportunities that could be developed in the near future are indicated in the following table:

TABLE 36
Existing and future avenues of self-employment in rural areas

Field	Existing No. of persons who are self-employed			Scope for future self-employment
	Full-time	Part-time	Total	
1	2	3	4	5
<i>(a) Field having existing and future avenues of employment</i>				
Dairy farming and milk selling	3070	..	3070	15320
Spinning and weaving	680	60	740	4630
Poultry farming	250	..	250	3560
Carpentry and wood working	2130	80	2210	3350
Retail selling	16300	1870	18170	3030
Nursery and vegetable cultivating	1400	70	1470	1870
Blacksmithy	2240	50	2290	1420
Piggery and sheep rearing	1460	..	1460	1270
Tailoring	4660	60	4720	1250

*Bloating of the data was done on the basis of population covered in the sample.

TABLE 36—*contd.*

1	2	3	4	5
Oil expelling	160	..	160	1050
Brick laying	830	40	870	1020
Shoe making and repairing	890	..	890	980
Repairing and servicing of diesel engines, agricultural implements	330	..	330	930
Basket making	510	..	510	840
Pottery	2190	190	2380	750
Laundrying, dyeing and bleaching	3460	350	3810	660
Bidi making	10	..	10	630
Fishing and boating	200	..	200	600
Food and beverage processing	2090	140	2230	560
Sheet metal working	130	..	130	420
Bicycle repairing	1290	10	1300	370
Ice-cream making	30	..	30	160
Plastic goods making	50	..	50	110
Hair-cutting (barber)	3430	180	3610	110
Transporting by motor and other vehicle	560	..	560	60
Butchery and meat selling	430	..	430	60
Sweet meat making	1110	20	1130	50
Others	750	..	750	300
<i>(b) Fields having no scope of future employment</i>				
Medical practice	1090	..	1090	..
Music, singing and dancing	650	670	1320	..
Purohit	300	..	300	..
Precision instrument and watch repairing	160	..	160	..
Electrical wiring and repairing	200	..	200	..
Goldsmithy	510	..	510	..
Fire works and agarbatti making	140	..	140	..
Catering	730	..	730	..
<i>(c) Fields having future scope of employment</i>				
Soap making	..	..	..	1500
Tanning and seasoning of leather	..	..	..	1420
Khandsari and gur making	..	..	..	870
Candle making	..	..	..	480
Match making	..	..	..	290
Food preservation	..	..	..	210
TOTAL	54420	3790	58210	50130

5.5 As may be expected, considerable scope for self-employment exists in such allied agricultural fields as dairy farming; poultry farming; nursery & vegetable cultivating and piggery and sheep rearing. Scope for self-employment also exists in such non-agricultural fields as spinning and weaving; carpentry and wood work; retail selling; blacksmithy; tailoring; oil expelling; brick-laying; shoe-making and repairing; repairing and servicing of diesel engines and agricultural implements; basket making; pottery; laundrying; dyeing and bleaching; bidi making and fishing and boating. Some of the new fields are soap making; tanning and seasoning of leather; khandsari and gur making and candle making.

5.6 Of the total number of 3.8 thousand persons self-employed on part-time basis, 1870 were engaged in retail selling; 670 in music, singing and dancing; 350 in laundrying, dyeing and bleaching; 190 in pottery; 180 in hair cutting (barber); and 140 in food and beverage processing.

5.7 It would be seen from the data presented in table that some fields have large potential for self-employment in future. While trained and experienced craftsmen would be needed to take up such work as carpentry; blacksmithy; tailoring; repairing & servicing of diesel engines and agricultural implements; it will also be advantageous to organise short-term training courses particularly in the fields of dairy farming; poultry; piggery and sheep rearing; food and beverage processing; soap making; tanning and seasoning of leather and food preservation.

5.8 Efforts will, however, have to be made to enable willing persons to establish themselves in rural areas by providing such inducements as financial assistance, provision of electric connection; raw material transportation and marketing facilities. The following chart summarises the type of assistance that would be needed in various fields.

Field	Type of assistance
Retail selling; laundrying, dyeing and bleaching; nursery and vegetable cultivating; dairy farming; poultry farming; fishing; food and beverage processing; spinning and weaving; tanning and seasoning of leather; oil expelling; khandsari and gur making; bidi making; tailoring; shoe making; and repairing; carpentry and wood working; blacksmithy;	Financial assistance
Dairy farming; oil expelling; carpentry and wood working	Provision of electricity
Dairy farming; poultry farming; food and beverage processing; spinning and weaving; tanning and seasoning of leather; khandsari and gur making; tailoring; shoe making and repairing; carpentry and wood working; blacksmithy; pottery;	Marketing and transport facilities

Working Proprietors and partners

5.9 As many as 250 private establishments in rural areas (out of 350) reported existence of one or more working proprietors and partners who were actively engaged in day-to-day operation of their establishments. Almost all (85.5%) the smaller private establishments (employing 5-9 workers) reported existence of working proprietors and partners. Of the total employment of 1159 in such establishments, 351 or about 30 per cent were working proprietors and partners. Similar analysis for bigger establishments (employment 10 or more workers) indicated that working proprietors and partners were actively engaged in 45.5 of the total establishments and the proportion of proprietors and partners to the total employment was 1 : 6.

5.10 Principle industries which were built up as a result of individual entrepreneurship are given below:

Industries	No. of establishments	Employment	No. of working proprietors/partners
Rice, atta and flour	41	319	83
Ice & ice cream	3	19	4
Wood & wooden products	18	129	29
Leather and leather products	12	78	23
Rubber and rubber products	2	60	4
Sundry hardwares	4	22	5
Bricks and tiles	75	579	156
Retail trading in petrol and mobile oil etc.	23	146	38
Selling in other goods	12	72	37
Hotels & restaurants	24	143	37

5.11 The above data indicates the avenues which in the light of rural characteristics provide scope for self-employment besides generating paid employment.

5.12 A study of occupational profile of working proprietors and partners revealed that majority of them have taken up administrative and managerial functions. Other fields in which they were engaged are production and related work and clerical and sales as could be seen from the table below:

Occupation	No. of working proprietors and partners
Professional and technical	4
Administrative and managerial	396
Clerical and sales	33
Production and related work	30
Others	4
TOTAL	476

5.13 An analysis of the educational attainment of the working proprietors and partners revealed that no relationship exists between the level of education and type of work performed by them. Following data shows their educational profile:—

Level of education	Number	Percentage
Below matriculation (including illiterates)	323	67.9
Matriculation and above but below graduation	111	23.3
Graduation and above but below post-graduation	29	6.1
Post-graduation	8	1.7
Professional and technical	5	1.0
TOTAL	476	100.0

(b) URBAN AREAS

5.14 A comprehensive account of self-employment in urban areas was outside the scope of the present survey. However, a limited assessment in respect of these segments of economy for which information was readily available from existing records of government departments, local bodies, employers and trade associations, licensing authorities etc. was attempted. The data gives an indication of the changes in the size of self-employment which may also in certain cases, have an element of direct employment. While translating the number of licences, registration etc. into manpower terms, consideration will have to be given to the fact that these numbers do not necessarily represent an equal number of self-employees. For instance, each public carrier may provide employment to 4—8 persons whereas in the case of Cycle-rickshaw 2-3 persons might be engaged in plying it on shift basis.

TABLE 37

	1967	1974	Increase (+) Decrease (—)
I. NUMBER OF LICENCES ISSUED			
(A) Railway authorities			
Porters	401	401	—
Hawkers and Venders	184	201	+ 17
(B) Regional Transport Authority			
Trucks	271	507	+ 236
Buses	89	129	+ 40
Tractors	89	441	+ 352
Taxis	7	34	+ 27
(C) State Excise Authorities			
Opium Shops	146	134	— 12
Bhang Shops	76	89	+ 13
Spirit Shops	71	73	+ 2
Ganja Shops	21	27	+ 6
Liquor Shops	96	128	+ 32
Toddy Shops	21	23	+ 2
(D) Collectorate and Civil Supply			
Stamp Vendors	73	82	+ 9
Lottery Agents	..	48	+ 48
Fair Price Shops	430	623	+ 193
Brick Kiln Owners	704	714	+ 10
Coal Depot	..	517	+ 517
Kerosene Oil Dealers	..	1313	+ 1313
Sugar Shops	48	549	+ 501

TABLE 37—contd.

	1967	1974	Increase (+) Decrease (—)
(E) <i>Municipalities</i>			
Bakeries	N.A.	196	—
Meat Sellers	N.A.	204	—
Fish Sellers	N.A.	104	—
Sweetmeat Sellers	N.A.	1200	—
Butchers	N.A.	11	—
II. NUMBER REGISTERED			
(A) <i>Thelas</i>	13500	15971	+ 2471
Cycle rickshaws	9267	14486	+ 5219
Ekka/Tongas	1537	1680	+ 143
Carts	33	37	+ 4
(B) <i>Bar Council</i>			
Lawyers/Advocates	815	1021	+ 206
(C) <i>Medical Association</i>			
Medical Practioners	488	377	— 111
(D) <i>Others</i>			
Agent, Life Insurance	1289	1475	+ 186
Contractor	256	286	+ 30
Weavers	6700	9600	+ 2900

Working Proprietors and Partners

5.15 As many as 6517 private establishments (out of 7432 existing in urban areas in the district reported existence of one or more working proprietors and partners who were actively engaged in day-to-day operation of their concerns. Almost all (95.4 per cent) smaller private establishments (with 5-9 workers) reported existence of working proprietors and partners. Of the total employment of 28.1 thousand in them about 7.5 thousand or 26.7 percent were working proprietors and partners. Similar analysis in respect of private bigger establishments indicating that working proprietors and partners were actively engaged in 72.9 percent of total establishments and their proportion to total employment was 1 : 8.

5.16 The principal industries which were built up by individual entrepreneurship are given below. The data indicates the industries and fields which in the light of economic characteristics of urban area of the district provide scope for self-employment besides generating substantial paid employment.

Industries	Number of establishment	Employment	Number of working proprietors and partners
Rice, atta and flour	118	1469	231
Bakery products	60	1001	116
Edible fats and oils	87	996	165
Sweet-meat and condiments	133	855	180
Cotton weaving in powerloom	49	602	73
Cotton weaving in handloom	151	1254	159
Carpet and daries	294	2526	320
Hosiery and knitted fabrics	88	656	119
Embroidery and crepelace	51	290	66
Textile garments	505	3081	580
Wood and wooden products	194	1781	368
Printing and publishing	180	1584	261
Leather and leather products	242	3721	428
Terpentine, synthetic, resin and plastic	86	806	133
Smelting, refining and re-rolling of iron and steel	91	1212	145
Metal products such as tin cans	73	825	115
Sundry hardwares	143	3055	404
Agricultural implements and oil engines	106	985	176
Repairing and servicing of motor vehicles	205	1580	293
Whole sale and retail trading	2015	14354	4724
Transporting by motor vehicles	143	1412	316
Hotels and restaurants	381	2623	534

5.17 A study of occupational profile of working proprietors and partners revealed that majority of them have taken up administrative, managerial, clerical and sales functions. Only a small proportion was engaged in skilled and other work.

Occupation	Number of working proprietors and partners
Professional and Technical	23
Administrative and managerial	8646
Clerical and sales	1909
Production and related	798
Others	122
TOTAL	11498

5.18 An analysis of the educational attainment of the working proprietors and partners revealed that no relationship existed between the level of education and type of work performed by them. Data below show the educational profile of working proprietors and partners.

Level of education	Number	Percentage
Below Matriculation (including illiterate)	6644	57.8
Matriculation and above but below graduate	3096	26.9
Graduates and above but below post-graduate	1249	10.9
Post-graduates	363	3.1
professional and Technical	146	1.3
TOTAL	11498	100.0

CHAPTER VI

TRAINING AND EDUCATIONAL FACILITIES

6.1 There has been an alround expansion in the educational facilities in the district resulting in an increase in the number of new entrants to the employment market. There are 16 degree colleges, one college of agriculture, one college of medicine, 123 higher secondary schools, one Industrial Training Institute and one polytechnic. In addition to one university at Kanpur, there is one Indian Institute of Technology, one institute of textile technology, one institute for sugar technology, one institute for oil technology which provide facilities both for higher education and research for different fields of technology.

6.2 Information about out-turn of matriculates, intermediate and graduates (arts and humanities) was collected from the Board of High School and Intermediate Education and Kanpur University etc. The table below indicates the out-turn of matriculates etc. for the years 1970 to 1972.

TABLE 38
Out-turn of matriculates, intermediate and graduates (arts and humanities)

Level of education	Out-turn		
	1970	1971	1972
Matriculates	17,322	18,341	21,653
Intermediates	8,595	8,913	10,784
Graduates (arts and humanities)	2,640	2,689	2,751

6.3 The out-turn of matriculates increased by 25.0 per cent during 1970-72 i.e. from 17.3 thousand to 21.7 thousand, while intermediates increased from 8.6 thousand in 1970 to 10.8 thousand in 1972 showing an increase of 25.5 per cent. However, the increase in the number of Graduates (arts and humanities) is only 4.2 per cent between 1970-72.

6.4 Information about the current and future trends of out-turn in respect of professional and technical education separately at certificate, diploma, graduate and post-graduate level (including doctorate) was collected from all the recognised colleges and training institutions in the district. In working out these estimates, the present intake capacity, admission targets set for the future as well as the wastage and stagnation, if any, at different levels of education were taken into consideration. The complete details about the number of educational institutions, intake capacity, minimum qualification for admission, duration of course, availability of scholarship stipend etc., actual out-turn in 1973 and likely out-turn during next five years etc., are presented in Appendix -IX(B). The table below indicates the likely out-turn during the next five years (1974-1979) at various levels of education:—

TABLE 39
Out-turn from institutions

Field of study	Likely out-turn in next five years (1974-1979)
1	2
(a) <i>Doctorate level</i>	322
Science	146
Agriculture	45
Engineering	131
(b) <i>Post-graduate level</i>	20,045
Science	4,230
Agriculture	535
Engineering and technology	727

TABLE 39—*Contd.*

1	2
Medicine	333
Education	365
Arts and humanities (including commerce)	13,855
(c) Graduate level	19,875
Science	4,510
Agriculture	400
Engineering and technology	2,070
Medicine	1,000
Nursing	60
Education	7,565
Law	4,270
(d) Diploma	4,859
Engineering and technology	1,095
Medicine	3,323
Fellowship of National Institute of Sugar	45
Associateship of National Institute of Sugar	256
Industrial Fermentation in alcohol technology	140
(e) Certificate level	8,710
Medicine	270
Education	2,460
Instructors, engineering and vocational trades	400
Engineering trades	4,470
Draughtsman (Civil and Mechanical)	240
Electrician	260
Fitter	790
Mechanic—instrument	160
Mechanic—Radio & TV	130
Mechanic—motor	330
Mechanic—Refrigeration and air-conditioning	160
Machinist composite	210
Shaper and planner	120
Turner	440
Tool and die maker	110
Wireman	180
Moulder	100
Painter	100
Welder (gas and electric)	240
Sugar engineering and biology	190
Others	710
Vocational trades	1,110
Compositor-hand and proof reader	60
Book-binder	30
Printing machine operator	50
Stenography—Hindi	310
Stenography—English	320
Cutting and tailoring	240
Embroidery	100
GRAND TOTAL	53,811

(Refer Appendix—Appendix X Part B—Out-turn from educational institutions by level of education)

6.5 In addition to the out-turn from training institutions and colleges discussed above, persons are also being trained under Apprentices Act, 1961 and Employers' own training programme. The table below shows the number trained during 1973 and likely out-turn during next five years (1974-79):—

TABLE 40
Number trained and likely out-turn during 1974-79

Occupation	Number trained during 1973			Likely Out-turn during next five years (1974-1979)			
	Under Apprentices Act, 1961	Through Employers own programme	Total	Under Apprentices Act, 1961	Through Employers own programme	Total	
	1	2	3	4	5	6	7
Draughtsman (Civil & Mech.)	9	..	9	46	..	46	
Fitter	201	..	201	1349	12	1361	
Turner	77	..	77	477	44	521	
Machinist	8	..	8	133	..	133	
Shaper	4	..	4	23	..	23	
Miller	6	..	6	52	14	66	
Grinder	8	..	8	53	4	57	
Planner	..	..	..	2	..	2	
Millwright	1	..	1	122	26	148	
Electrician	41	..	41	262	..	262	
Mechanic—Refrigeration	2	..	2	..	..	..
Wireman	17	..	17	91	50	141	
Lineman—Light and power	8	..	8	40	100	140	
Steam turbine operator	..	..	..	1	..	1	
Boiler attendant	6	..	6	160	..	160	
Welder	33	..	33	180	16	196	
Moulder	12	..	12	114	..	114	
Blacksmith	5	..	5	103	..	103	
Sheet metal worker	7	..	7	159	..	159	
Tool and die maker	..	..	..	20	8	28	
Pattern maker	1	..	1	5	..	5	
Carpenter	6	..	6	99	..	99	
Plumber	2	..	2	10	..	10	
Mechanic precision instrument	12	..	12	65	..	65	
Mechanic automobile	27	..	27	226	..	226	
Mechanic diesel	..	..	..	47	..	47	
Mechanic textile machinery	5	..	5	145	..	145	
Doffer-cum-piecer	24	..	24	165	..	165	
Weaver	86	..	86	420	..	420	
Tenter	16	..	16	105	..	105	
Letter press machineman	3	..	3	30	..	30	
Line-type operator	..	..	..	3	..	3	
Compositor	2	..	2	29	..	29	
Book binder	..	..	..	11	..	11	
Sales assistant (general)	1	..	1	47	..	47	
Clerk (General)	17	38	55	206	210	416	
Book-keeping and accountancy	..	..	..	45	21	66	
Store-keeper	..	..	..	50	..	50	
Cashier	..	..	..	40	..	40	
Bricklayer	..	..	..	20	..	20	
Cook	..	..	..	5	..	5	
Steward—floor	1	..	1	19	..	19	
Backer and confectioner	..	..	..	3	..	3	
Attendant/operator (chemical)	..	..	..	3	..	3	
Mechanical engineer	..	3	3	..	..	..
Metallurgist	..	18	18	..	3	3	
Pharmacist	..	91	91	..	455	455	
Laboratory assistant (pharmaceutical)	..	32	32	..	160	160	
Nurse	..	106	106	..	150	150	
Telephone operator	..	52	52	..	200	200	
Jig borer	..	..	..	..	4	4	
Mechanic maintenance (chemical plant)	..	2	2	..	10	10	
Lineman—telephone and telegraph	..	55	55	..	100	100	
Mechanic—telephone	..	..	..	..	100	100	
TOTAL	648	397	1045	5185	1687	6872	

6.6 It will be observed from the above table that a large number of persons are likely to be trained during 1974-1979 under Apprentices Act, 1961 in such trades as fitter (1349); turner (477); machinist (133); millwright (122) electrician (262); boiler attendant (160); welder(180); moulder (114); blacksmith (103); sheet metal worker(159); mechanic-automobile (226); mechanic-textile machinery (145); doffer-cum-piecer (165); weaver (420); tender (105) and clerk-general (206). Through employer's own training programme sizeable number of persons are likely to be trained during 1974-1979 in trades such as wireman (50); lineman light and power (100); clerk-general (210); pharmacist (455); laboratory assistant-pharmaceutical (160); nurse (150); telephone operator (200); mechanic-telephone (100) and lineman-telephone and telegraph (100). The employers' own training programme is being organised mainly to meet their own-requirements.

6.7 Besides the training programmes discussed above, the Government of India, Ministry of Education also provides stipendary apprenticeship training to diploma and degree holders in engineering and technology. The following table indicates the branch of engineering, the number trained and likely to be trained.

TABLE 41
Stipendary training programme

Field of Engineering	Number trained during 1973	Number likely to be trained during 1974-79
<i>Graduates</i>		
Electrical engineering	50	235
Aeronautical engineering	28	140
Mechanical engineering	9	81
Automobile engineering	3	15
<i>Diploma</i>		
Mechanical engineering	23	88
Electrical engineering	21	95
Electronic	3	5
Automobile engineering	12	60
TOTAL	149	719

Sub. National Systems Unit,
National Institute of Educational
Planning and Administration
17-B, SriAurbindo Marg, New Delhi-110016
DOC. No.....
Date.....

CHAPTER VII

MODIFICATIONS IN THE TRAINING AND APPRENTICESHIP PROGRAMME

7.1 Craftsmen and apprenticeship training programmes which are in operation for over a decade are organised with a view to meeting the changing requirements of crafts men in the context of rapid technological developments. There are 356 Industrial Training Institutes all over the country with a seating capacity of 1.53 lakhs both in the engineering and non-engineering trades. As a result of concerted drive undertaken to implement the Apprentices Act after the announcement of the 20 point economic programme by the Prime Minister, the implementation position rose to 1.21 lakhs seats utilised against 1.28 lakhs seats located on 31st January 1976 showing a substantial increase of 17.8 thousand located seats and 51.70 thousand seats utilised compared to the earlier position. The coverage of the Apprentices Act has also been extended to 15 new fields bringing the total number of industries specified under the Act to 216. In addition, 57 special fields in engineering and technology have also been designated under the Act for the graduate and technician apprentices. Besides, 41 additional trades for trade apprentices have been designated in addition to the existing number of 62, bringing the total of number of trades designated to 103 for trades apprentices under the Apprentices Act. All these training programmes envisaged constant improvements of industrial skills required for development of industries and proper utilisation of human resources.

7.2 In the second and third five year plans, rapid industrialisation with particular emphasis on the development of basic and heavy industries was made. We achieved a spectacular advance in the field of basic and engineering industries during the last 15 years of economic progress in the country. The production of essential industrial materials has recorded big increase and the country is now producing anything from a pin to the sophisticated aeroplanes and electronic equipment. Hence, it is imperative that our country requires increasingly greater number of highly skilled men to keep pace with our rapidly expanding economy and changing technology. On the industrial front, the skilled craftsmen transforms the ideas and diagrams of the scientist and engineer into the finished product. He builds, operates, installs and services the machines in factories, workshops, offices etc. He helps to build and maintain our giant industrial plants, atomic installations and performs many varied jobs essential to the smooth running of the industrial establishments.

7.3 The degree of skill possessed by the individual worker determine the quality of the job that he is able to perform for the industry. Equally important is the necessity to keep training practices abreast with the changing needs of the industry. One of the most far reaching aspects of expanding economy has been an acceleration of technical know-how with industrial technology. As a result major developments are being telescoped into comparatively short time. This acceleration has brought about an unprecedented and sustained demand for skills. Any substantial change within the foreseeable future in the need for developing and improving the skills of our workers will be more and complex. This demands the development and change in our Industrial Training and Apprenticeship Programme with more orientation towards employment. In view of this, the skill needs would have to be further graded to find out exact type of training which would need to be started for meeting specific requirements of the industries at the area level. The Planning Commission, therefore, recommended that future manpower requirement need to be assessed both qualitatively and quantitatively. The Expert Sub-Group which evaluated Area Skill Survey was also of the same opinion and recommended that a more quantitative assessment of manpower needs by occupations, as has been done under Area Skill Surveys, would not be enough and a technical survey to assess the precise degree of skill under each occupation also would be necessary.

7.4 The main objectives of the qualitative survey are to study the following aspects :—

- (a) Adequacy of the existing training/apprenticeship training programme and the extent to which they fulfil the needs of the area ;
- (b) Occupations in which training/apprenticeship programme will need to be provided in the light of the future manpower needs ;
- (c) Extent to which there is an excess of training facilities in the context of area needs ;
- (d) Modifications needed in the existing training curriculum to meet the requirements ; and
- (e) Directions in which quality of training will need to be upgraded to achieve improvements in the required skills.

7.5 Existing industries employing 100 or more skilled workers and the trade in which seven or more workers are employed were considered for conducting qualitative skill survey. The establishments where the number of workers currently engaged under any trade is less than seven but sizeable requirement (seven and above) during the next five years have been anticipated were also approached for furnishing the required information. Data from all such emerging establishments who anticipated additional requirements of at least seven in a trade were also covered. In all 75 establishments were selected for qualitative skill survey. In this connection an appeal was sent to all establishments from the District Magistrate who was also the Chairman of the Advisory Group on Area Skill Survey along with a copy of the questionnaire for extending all the cooperation and assistance to the survey teams by way of furnishing the required information. A letter was also sent to all the Central Government establishments by the Regional Directors of Apprenticeship Training, Northern Zone giving objective of the survey and seeking cooperation needed in the matter.

7.6 Two survey teams were formed, each team consisting of one technical person from the office of Regional Director of Apprenticeship, Kanpur and the other from the Area Skill Survey office. The survey teams visited the establishments/industries and discussed with the Personnel Managers/Labour Officers/Training Officers for obtaining the necessary data. During the visits to different departments of the establishments, a minute study of job content of the workers, putting questions to them for ascertaining their background such as educational qualifications, technical training, if any etc. was made. This enabled the survey teams to find out the new skills, the type of machine being used etc.

7.7 **Questionnaire**.—Some of the important items on which the information was collected were particulars regarding the type of industries, total number of workers engaged by categories, recruitment procedure adopted, training activities in the industries, detailed job specification (Appendix-I).

7.8 **Coverage**.—Out of 75 establishments surveyed, the information could be obtained in respect of 61. The categorywise details of the establishments who furnished the information are as under :—

	Public Sector	Private Sector	Total
1. Large	28	16	44
2. Medium	7	5	12
3. Small	..	5	5
TOTAL	35	26	61

Another 14 establishments were also visited by the survey teams but the information could not be collected due to certain administrative and other reasons.

7.9 **Categories of workers**.—The effective way of determining the degree/level of skill of a worker in a particular trade/occupation is to study the nature of work one is doing. This can be done by job analysis and studying the element of skill performance by the workers in the industries. Some general system for classifying the work which facilitate the assessment of degree/level of work from the critical element of job is the way for assessing the degree of skill. Unfortunately majority of industries in this area have not attempted to classify the skill level in a scientific way. Still many of them are having their own classification on the basis of wages paid to the workers. The wage structure in many cases are however based on the job performance. Another difficulty experienced in assessing the skill level was that the degree/level of skill varied from industry to industry for the same trade/occupation so also the wage structure. The job specifications in respect of some of the trades which differ from industry to industry are given in Appendix-XI.

7.10 The following table indicates the categorisation of workers as existed in the industries separately for public and private sector and large, medium & small scale industries.

Percentage of workers to total

	Public	Private	Total
1. Large	79	88	83
2. Medium	83	61	77
3. Small	..	64	64
TOTAL	79	87	83

The workers constituted 83 per cent of the total employees in the establishments studied under the Qualitative Skill Survey. The percentage of workers to total was higher (87) in the private sector than that in the public sector (79). This was also true for larger establishments. In case of establishments classified as medium the position was however reverse.

7.11 **Selection procedure.**—The survey reveals that the highly skilled workers are selected from the skilled categories working in the same establishment on the basis of their seniority and their performance. Skilled workers are also selected from the establishments except for those special skills where such skills do not exist in the industries in the semi-skilled category. For semi-skilled category, the craftsmen trained at the Industrial Training Institutes and under Apprenticeship programme are absorbed in certain percentages and that too in few trades only, while the rest are filled from the unskilled categories of workers informally trained in the establishments. In the old industries the general practice is to recruit unskilled persons as usual workers and attach them with the skilled and semi-skilled categories of workers and to promote them as semi-skilled in due course whenever the vacancies arise. In case of new establishments coming up, this practice is however not being followed and trained persons are recruited directly.

7.12 **Existing training facilities and staff engaged on training.**—35 establishments are imparting 'on the job' training as per Apprentices Act 1961. In most of the cases there is a dearth of staff who coordinate the training work of the apprentices on the shop floor. The skills are mostly repetitive and the possibilities of covering various operations are difficult in most of the production shops. There is also lack of coordination between the training department and the shop floor staff. Facilities for all the job training to upgrade and update the workers to the required level are available only in three establishments. The refresher courses are conducted for duration varying from 12 to 16 weeks. Particularly in telephone industries, courses for telephone mechanic/telephone operator are conducting as 'on the job' training for a period of three months before placing the persons on the job. In so far as integrated training is concerned this is available only in one establishment for two and a half years' duration.

7.13 The above training programmes are being conducted both in engineering and non-engineering trades. The type of training and staff available in the various establishments is as indicated below :—

Activity	No. of establishments having									
	Engi- neer	Section- al head	Fore- man	Super- visor	Charge- man	Highly skilled worker (maistry)	Trg. mana- ger	Trg. Super- intendent	Trg. officer	In- struc- tors
1	2	3	4	5	6	7	8	9	10	11
Production of hydrogenated oil	1	1	..	1	..	1	..	..	..	..
Cotton spinning & weaving in mills	9	9	..	8	..	9	..	..	..	..
Jute spinning & weaving	1	1	..	1	..	1	..	..	..	..
Wool spinning & weaving	1	1	..	1	..	1	..	..	..	..
Fertilisers	..	1	..	..	..	..	..	1	..	1
Synthetic & plastic products	1	1	1	2	..	2	..	..	..	..
Iron & steel	..	1	..	1	..	1	..	..	..	..
Iron & steel furniture	..	..	1	..	1	..	..	..	..	..
Sundry hardwares	..	1	..	2	1	..	..	..	..	..
Agricultural implements	..	..	1	..	1	..	..	..	..	..
Electronic equipments	..	1	1	1	..	..	..	..	..	..
Repairing and servicing of motor vehicles	..	1	1	1	1	1	..	..	1	1
Repairing and maintenance of aeroplanes and aero-engines	..	..	..	..	..	..	1	..	1	1
Construction & maintenance of buildings	..	..	1	..	..	..	1	..	..	..
Generation & transmission of electric energy	1	2	..	2	2	..	..	..	..	..
Distribution of electric energy	2	..	1	1	1	1	..	..	..	..
Purification & distribution of water	1	..	..	..	1	..	..	..	..	..
Telephone communication	..	..	..	1	..	1	..	1	..	..
Other Central Govt. establishments	..	..	3	3	2	3	..	..	..	..

7.14 Only six establishments (all in the public sector) are having separate training centres. Most of the establishments conduct on the job training on the existing production machine and they prefer to recruit ITI passed trainees wherever possible for the purpose so that they need not have to create basic training facilities in their own establishments.

Adequacy of existing training facilities

7.15 The following table gives the number of trained personnel required, the number of trainees likely to be available and the gap between the two during the next five years :—

TABLE 42
Inadequacy/Surplus in training facilities

Trade/Occupation	Manpower required upto 1979	No. likely to be trained upto 1979	Inadequacy of training facilities	Surplus of training facilities
Moulder	295	214	81	..
Carpenter	590	179	411	..
Blacksmith	493	103	390	..
Machinist	1199	343	856	..
Turner	838	961	..	123
Miller	137	66	71	..
Grinder	283	117	166	..
Fitter	1565	2151	..	586
Mechanic-automobile	338	556	..	218
Millwright	156	148	8	..
Electrician	542	522	20	..
Mechanic-Radio & TV	30	130	..	100
Wireman (light & power)	126	321	..	195
Lineman (light & power)	90	140	..	50
Plumber	16	90	..	74
Welder (Gas & Electric)	518	436	82	..
Sheetmetal worker	72	239	..	167
Boiler attendant	81	160	..	79
Mechanic-textile machinery	162	145	17	..
Mechanic-Refrigeration & air-conditioning	28	160	..	132
Draughtsman (Civil & Mechanical)	190	286	..	96

7.16 Basic aim of our craftsmen training scheme and apprenticeship training programme is to help the industries to increase productivity by providing necessary trained workers. Craftsmen trained in the Industrial Training Institute are adequate to the extent of providing basic engineering skills. They are mostly absorbed as semi-skilled workers. Even apprentices trained under the apprenticeship programme are mostly taken under the semi-skilled category. The survey has further revealed that most of the industries in Kanpur are old where there is lack of modern machinery. Only a few industries which have come up very recently are modern and equipped with latest machines.

Diversification of existing training programmes

7.17 The survey teams made an effort to identify changes in skill needs by studying, observing the job performance and also by personal discussions with the employers and employees. The modifications necessary to be made in the curriculum of different designated trades is as indicated below. This information could, however, be collected in respect of few trades only as most of the establishments could not offer any specific suggestions regarding the changes in curriculum for improvement of training as they are not well familiar with the syllabi of Industrial Training Institute and other training programmes :—

1. Electrician :

1. Syllabus should include High Voltage Circuits, Connection & Maintenance of High Voltage equipments.
2. More practice may be given in the connection of rectifiers and transformers.
3. A short course on automobile wiring testing and maintenance of auto electrical equipments may be introduced.

4. More practice on DC & AC winding may be given to the trainees or a course on Armature Winding be introduced.
 5. In general all-round improvement in Theoretical & Practical training is needed but more emphasis may be given to practical training.
2. Wireman
1. Practical training on overhead line work, connection and fault location etc. may be included in the syllabus.
 2. Syllabus should also include High Voltage equipment and their connections & maintenance.
 3. Workshop Calculation & Science Syllabus may be revised so as to suit the intake qualification.
 4. More emphasis may be given for practical training during the institutional training.
 5. A separate course may be introduced on cable jointing after preliminary training in Wireman course.
3. Moulder
- Preparation of Plastic Moulds, Polishing of plastic moulds and plastic moulding also should be included in the Moulders syllabus.
4. Plumber
- Fitting of water supply and drainage pipe should be included in the syllabus. Also practical training in these skills can be with city water supply system so as to receive actual practice by the trainees.
5. Regarding all other trades more emphasis should be given for practical training.

7.18 As Kanpur is predominantly a textiles area, it is felt that some more trades in the textiles group may be brought under the Apprenticeship Programme. At present the needs for such trades are being met by training under learners programme in the industry itself. The proposed trades are as follows :—

- (1) Winder/Reeler
- (2) Sizer (Front and back)
- (3) Warper (Front and back)
- (4) Drawer
- (5) Knitter
- (6) Sam

7.19 Further in view of the diversified needs of changing industrial occupations it is felt that few new trades also need to be introduced at the Industrial Training Institutes are included in the Apprenticeship Programme for which there is likely to be enough demand in the area in the near future. The occupations in which training programme need to be provided are :—

- (1) Telephone Mechanic
- (2) Telephone Operator
- (3) Pump Driver/Attendant
- (4) Armature winder
- (5) Pipe fitter (water works)
- (6) Electrical Fitter

7.20 The demand for a particular skill may arise either due to technological development and or due to the coming up of new type of industries who may come forward with special skill requirements. Any change in the industrial skill need to be reflected in the training programme so that the trained persons could get the jobs. If industry needs specialised skill due to change in machine, techniques or production process, it need to be notified immediately so that necessary modifications in the existing training programme could be introduced in the Industrial Training Institutes to train persons which require specialised skills. This is, however, cannot be done without the active cooperation of the industries. Besides it would also be essential to ascertain the likely manpower requirements of various industries at the area level at frequent intervals so as to diversify the training programme according to the needs of the area.

CHAPTER VIII

UNEMPLOYMENT TRENDS

8.1 The unemployment trends in the area have been studied on the basis of the data relating to the number of job seekers registered with the following Employment Exchanges functioning in the districts:—

1. Regional Employment Exchange, Kanpur,
2. University Employment Information & Guidance Bureau, Kanpur,
3. Special Employment Exchange for physically handicapped, Kanpur, and
4. Kanpur residents registered with Professional & Executive Employment Office, Lucknow.

While studying the unemployment trends, it is to be borne in mind that as these Employment Exchanges are located in urban areas, all the rural employment seekers may not be registered. Even among urban employment seekers, all unemployed persons may not necessarily be registered with the Employment Exchanges, as the registration is voluntary and it is not obligatory on the part of employment seekers to get themselves registered with the Employment Exchanges for seeking employment assistance. On the other hand, employed persons may also seek registration with the employment exchange in the hope of getting better jobs.

8.2 **Persons registered.**—The number of applicants pending on the Live Register of the four employment exchanges mentioned above increased from 43.4 thousand in June 1969 to 115.6 thousand in June, 1973 (thereby showing an increase of 166%) and became more than two and half times. However, this number came down to 97.0 thousand in June 1974. During the period June 1969-74, the number of educated applicants more than doubled while the women educated applicants nearly became six times.

8.3 The following table shows the year-wise trend in the Live Register from 1969 to 1974 :—

TABLE 43

Total and educated number of job seekers on the Live Register

Year ending June	Total No. of applicants on the Live Register			No. of educated applicants included in the Total (Matriculates & above)		
	Men	Women	Total	Men	Women	Total
1969	41,338	2,066	43,404	12,846	443	13,289
1970	43,234	2,574	45,808	15,458	716	16,174
1971	53,553	3,364	56,917	18,310	1,313	19,623
1972	93,400	3,986	97,386	28,763	1,646	30,409
1973	110,519	5,099	1,15,618	23,287	2,297	25,584
1974	91,525	5,461	96,986	23,056	2,513	28,569

Educational attainment of job-seekers

8.4 Analysis of the job seekers by their educational attainment reveals that 30.6 per cent of employment seekers pending on the Live Register at the end of June 1969, were matriculates and above.

As against this, the proportion of such persons at the end of June 1974, was 29.5 per cent as could be seen from the table given below :—

TABLE 44
Educated applicants on the Live Register

(Figures in brackets indicate percentage to total)

Category	June 1969			June 1974		
	Men	Women	Total	Men	Women	Total
1	2	3	4	5	6	7
(I) EDUCATED APPLICANTS	12846	443	13289 (30.6)	26056	2513	28569 (29.5)
(a) Matriculates	9140	185	9325 (21.5)	12945	720	13665 (14.1)
(b) Higher Secondary (including intermediates)	1693	74	1767 (4.1)	7427	679	8106 (8.4)
(c) Graduates	1664	131	1795	4880	810	5690
Arts	780	70	850	2505	690	3195
Science	532	25	557	1582	114	1696
Commerce	241	..	241	489	..	489
Engineering	74	2	76	118	..	118
Medical	20	2	22	50	5	55
Law	1	1	2	10	..	10
Education	14	30	44	59	1	60
(d) Post-Graduates	349	53	402 (0.9)	804	304	1108 (1.1)
Arts	80	33	113	274	288	562
Science	145	9	154	349	6	355
Commerce	50	..	50	66	..	66
Agriculture	21	1	22	73	..	73
Education	4	..	4	2	..	2
Others	49	10	59	40	10	50
Non-matriculates including illiterates	28492	1623	30115 (69.4)	65469	2948	68417 (70.5)
TOTAL :	41,388	2066	43404 (100.0)	91525	5461	96986 (100.0)

8.5 The number of educated applicants on the live register which was 13,289 at the end of June 1969 became more than double and numbered 28,569 at the end of June 1974. Of the total educated applicants, 70.2% in 1969 and 47.2% in 1974 were matriculates. As against this, the percentage of those who had passed Higher Secondary Examination (including intermediates), and were pending on the live register, was 13.3% in June 1969 and 28.4% in June 1974. The percentage of graduates was 13.5% and 19.9% in 1969 and 1974 respectively. The proportion of post-graduates amongst the educated persons which was 3% in June 1969 rose to 3.9% in June 1974.

8.6 All the categories of applicants have shown manifold increases during the period from June 1969 to June 1974. While the number of matriculates increased from 9,325 at the end of June 1969 to 13,665 at the end of June 1974, (thereby showing an increase of 46.5%), the number of those who had passed Higher Secondary Examination or Intermediate, rose significantly from 1,767 in June 1969 to 8,106 in June 1974. The number of graduates increased from 1,795 at the end of June 1969 to 5,690 at the end of June 1974. Among graduates, the number of medical graduates increased from 22 to 55, while that in Arts and Science increased from 850 to 3,195 and 557 to 1,696 respectively. The number of Commerce Graduates almost became double and numbered 489 in 1974 as compared to 241 in 1969. The number of post-graduates also increased sharply from 402 at the end of June 1969 to 1,108 at the end of June 1974. The increases were noticeable in Arts, Science and Agriculture faculties. The number of post-graduates in Commerce almost remained static.

8.7 The number of educated women applicants on the Live Register increased significantly from 443 at the end of June 1969 to 2,513 at the end of June 1974. The number of matriculate women applicants which was 185 at the end of June 1969 became 720 at the end of June 1974. The increase was also very significant for those who had completed Intermediate or Higher Secondary Examination and were seeking employment through the Employment Exchanges. The number of graduate women applicants had increased from 131 to 810 during the period under review. The increases were significant particularly in case of Arts and Science faculties. The number of women graduate applicants in education faculty, however, decreased from 30 in 1969 to 1 in 1974. The number of Post-graduate women applicants also recorded a significant increase from 53 at the end of June 1969 to 304 at the end of June 1974. The number of post-graduate women applicants in Arts increased from 33 to 288, while it decreased from 9 to 6 in Science.

Type of work sought by employment seekers

8.8 The following table shows type of work sought by job-seekers on the Live Register of Employment Exchanges functioning in Kanpur district:—

TABLE 45
Type of work sought by employment seekers

(Figures in brackets indicate percentage to total)

Type of work sought	June 1969			June 1974		
	Men	Women	Total	Men	Women	Total
Professional & Technical	902	453	1355 (3.1)	1581	951	2532 (2.6)
(i) Teachers	102	202	304	723	778	1501
(ii) Others	800	251	1051	858	173	1031
Administrative, Executive & Managerial	26	..	26 (0.1)	20	..	20
Clerical & related work	792	18	810 (1.9)	2154	245	2399 (2.5)
Sales work	9	..	9	10	..	10
Service	183	232	415 (1.0)	125	163	288 (0.3)
Farming, fishing, hunting & related work	27	..	27 (0.1)	24	..	24
Production & related work and Transport equipment operation	6343	1	6344 (14.6)	7488	99	7587 (7.8)
(i) Production & related work	6089	1	6090	6486	99	6585
(ii) Transport equipment operator	254	..	254	1002	..	1002
Unskilled	2413	127	2540 (5.8)	3799	472	4271 (4.4)
Freshers (New entrants to the employment market)	30643	1235	31878 (73.4)	76324	3531	79855 (82.4)
(i) Matriculates & above but below graduates	7618	150	7768	15456	946	16402
(ii) Graduates & above	1403	71	1474	4571	600	5171
(iii) Others	21622	1014	22636	56297	1985	58282
TOTAL :	41338	2066	43404 (100.0)	91525	5461	96986 (100.0)

8.9 The proportion of job-seekers to total decreased in all categories in 1974 as compared to 1969, except clerical & related workers and freshers in whose case it rose from 1.9% and 73.4% in 1969 to 2.5% and 82.4% in 1974 respectively.

8.10 During the period 1969-1974, the number of women job-seekers recorded manifold increases in all the categories except those available for services. The increases were, however, more marked in clerical & related workers, unskilled and freshers (new entrants to the labour market without any previous work experience or vocational training). The number of women work seekers for production & related jobs increased from 1 in 1969 to 99 in 1974, while those seeking professional and technical work rose from 453 to 951 during the same period. It may be of interest to note that not even a single women worker is available on the Live Register of employment exchanges for employment as administrative, executive and managerial, sales, farming fishing, hunting & related work and transport equipment operator.

8.11 More than four-fifth of the registrants in 1974 were freshers without any work experience or vocational training, followed by those seeking production & related work and transport equipment operation (7.8%); unskilled work (4.4%); professional technical work (2.6%) and clerical & related work (2.5%). Women job seekers were either freshers or seeking job of teaching, unskilled and clerical & related work. Only a few of them were available in the occupations like service and production & related work.

8.12 **Unemployed persons.**—Of the three principal sources of statistics on unemployment (i.e. Decennial Population Census, National Sample Survey and Employment Exchange Statistics), the statistics of persons registered with Employment Exchanges for employment assistance provide regular series and the data are available with the minimum time-lag. The number of applicants on the Live Register of Employment Exchanges cannot, however, be taken to reflect the exact level of unemployment due to the well-known limitations discussed earlier.

8.13 The Live Register figures, therefore, need to be suitably corrected for these limitations before it could be used as an indicator of the level of unemployment. Unfortunately, the correction factors to eliminate all those who are employed, students etc. are not available. In view of this, it is not possible to have a precise estimate of the level of unemployment on the basis of employment exchange statistics.

8.14 A complete count of unemployed persons is outside the purview of a survey of this nature. Even the number of unemployed persons in rural areas originally collected by obtaining information from village elders, officials and other knowledgeable persons has not been found to be a realistic one. An attempt was, therefore, made in rural areas to obtain data about educated unemployed (matriculates & above) and skilled artisans possessing recognised certificate during the course of construction of the frame of establishments with the 1-4 workers (including self-employed) in respect of 10% of the villages selected in the sample for the collection of village schedule (AS-V-Appendix I). The number of unemployed persons (educated & skilled artisans) in rural areas as revealed by the Area Skill Survey is given in the following table :—

TABLE 46
Educated unemployed in the rural areas

Type of job looking for	No. of unemployed persons	No. registered with the Employment Exchange	Percentage of registrant to total
	(Figures in brackets indicate percentage to total)		
<i>Teachers</i>	533 (4.8)	177	33.2
(i) Primary	462 (4.2)	156	33.7
(ii) Higher Secondary	71 (0.6)	21	29.5
<i>Physicians & Surgeons</i>	21 (0.2)	7	33.3
Allopathic	7	..	
Ayurvedic	7	..	
Homoeopathic	7	7	100.0
<i>Patwari</i>	14 (0.1)	..	
<i>Production & related work & transport equipment operation</i>	276 (2.5)	127	46.0
Moulder	7	..	
Weaver-handloom	14	7	50.0
Tailors	14	14	100.0
Fitters	149	85	57.0
Mechanic—Auto	14	14	100.00
Mechanic—Tractor	7	..	
Electricians	36	7	19.4
Drivers—truck	35	..	
<i>Freshers</i>	10270 (92.4)	1160	11.3
Matriculates	6771 (60.9)	399	5.9
Intermediates	2463 (22.2)	356	14.4
Graduates & post-graduates			
Arts	740 (6.6)	278	37.5
Science	162 (1.5)	85	52.5
Commerce	49 (0.4)	42	85.7
Agriculture	85 (0.8)	..	..
TOTAL	11114 (100.0)	1471	13.2

8.15 The over-whelming majority (92.4%) of the rural educated unemployed were freshers without any work experience or vocational training, which includes 60.9% matriculates, 22.2% intermediates and 9.3% graduates (including post-graduates). In the last category, the concentration of unemployed persons was in Arts faculty, followed by Science, Agriculture and Commerce. 4.8% of the unemployed persons in rural areas were seeking teaching jobs (mainly at the primary level) and 2.5% for production & related work and transport equipment operation.

8.16 Only 13% of the unemployed were registered with Employment Exchanges for employment assistance. The proportion of persons registered with Employment Exchanges to total unemployed in rural areas varied from 11.3% for freshers (without any previous work experience or vocational training) to 100.0% for tailors and auto-mechanics. The other categories for which at least half of the unemployed were registered at the Employment Exchanges were—handloom weavers; fitters and science & commerce graduates (including post-graduates).

8.17 The data about the duration of rural unemployed (educated and skilled artisans) has revealed that more than four-fifth (83.9 per cent) were unemployed for more than one year, 14.1 per cent between six and twelve months and the remaining 2.0 per cent for the last six months only.

TABLE 47

Educated unemployed in the rural areas by duration

Type of job looking for	No. of unemployed persons by duration			
	Upto six months	6—12 months	More than 12 months	Total
<i>Teachers</i>	..	129	404	533
(i) Primary	..	103	359	462
(ii) Higher Secondary	..	26	45	71
<i>Physicians & Surgeons</i>	..	..	21	21
Allopathic	..	..	7	7
Ayurvedic	..	..	7	7
Homoeopathic	..	..	7	7
<i>Patwari</i>	7	..	7	14
<i>Production & related workers and transport equipment operators</i>	..	24	252	276
Moulder	..	..	7	7
Weaver—handloom	..	..	14	14
Tailors	..	7	7	14
Fitters	..	15	134	149
Mechanic—auto	..	..	14	14
Mechanic—tractor	..	2	5	7
Electricians	..	..	36	36
Driver—truck	..	..	35	35
<i>Freshers</i>	215	1419	8636	10270
Matriculates	181	935	5655	6771
Intermediates	18	244	2201	2463
Graduates & post-graduates	..	190	550	740
Arts	..	41	105	162
Science	16	9	40	49
Commerce	..	..	85	85
Agriculture	..	..	..	..
TOTAL :	222	1572	9320	11114

CHAPTER IX

EMPLOYMENT POTENTIAL

9.1 As a part of the survey, discussions were held with the eminent persons including economists, statisticians, industrialists and employers' associations in order to throw light on aspects of employment potential i.e. scope for employment opportunities that could be generated in the light of economic characteristics and development of the area. Necessary information was collected in a specially designed questionnaire. (A. S. IX-Appendix-I). The industries which can be set up with the available resources in the district are contained in the table below along with the approximate number of persons that can be absorbed.

TABLE 48

Employment potential—Industry-wise

Description of Industry	Employment potential	Percentage to total
Production of fruit products such as jam, jelly, sauce and canning & preservation of fruits	82	0.5
Cotton spinning & weaving in mills	7335	45.6
Manufacturing of pulp & paper products	425	2.6
Currying, canning & finishing of hides & skins, & preparation of finished leather	2300	14.3
Manufacturing of all kinds of rubber products from natural or synthetic rubber	2750	17.1
Manufacturing of basic industrial chemicals such as acids, alkalies	965	6.0
Manufacturing of other chemical products including inedible oils and fats	1785	11.1
Manufacturing and assembling of machine tools	450	2.8
TOTAL	16092	100.0

From the above table it will be seen that the cotton textile industry can provide employment to 7,335 persons followed by rubber industry (2,750) and leather industry (2,300). The following are the further details of the industrywise employment potential in respect of some important industries :—

- (i) *Cotton spinning & weaving in mills*—Textile is undoubtedly an important traditional industry in this district and has unquestionable bearing of its industrial economy, considering its great employment potential, and the socio-economic contribution that it makes in the lives of the people. 14 out of the 36 cotton textile mills in U.P. State are located in this district. The mills in this district account for half of the spinning and four-fifths of the weaving capacity and over four-fifths of the mill cloth output in Uttar Pradesh. Considering the favourable position, there is a scope for setting up 15 new mills in this district. In order to augment the processing capacity of the existing units, out of the proposed three processing houses, one processing house can be established at Kanpur. This industry can provide employment easily to 7,335 persons.
- (ii) *Leather & leather goods*—Considering the availability of hides and skins in this district, there is a considerable scope for starting new units, diversifying and modernising the existing leather tanning units for manufacturing of finished leather. 12 new units can be set up in this district providing employment to the tune of 2,300 persons.
- (iii) *Manufacturing of rubber products*—The growth of the market for rubber products is directly linked with the increase in population and with the development of infrastructure of the economy. Rise in the purchasing power of the people in rural areas is expected to induce many to possess their own vehicle, namely cycle. This will culminate into greater demand for cycle tyres, tubes and a host of moulded goods that go with it. The increased allocation in our plan outlays on mass transportation and communication will spur the demand for tyres and tubes needed for trucks, buses etc. The green revolution and the stress on mechanised farming will generate more demand for tyres and tubes for tractors and tailors. In view of the growing demand for rubber products, 4 new units can easily be set up to meet the demand and provide employment to the tune of 2,750.

(iv) *Manufacturing of basic industrial chemicals including inedible oils and fats*—The development of heavy chemical industry has been alluding the State specially because it has not been able to offer any important basic raw material. When the pipe line from Barauni to Kanpur was laid to bring Naptha, it saw the starting of the Indian Explosives Ltd., Kanpur. Another development that is taking place is the establishment of oil refinery at Mathura which is expected to be commissioned by 1976 with an initial capacity to handle six million tonnes of oil. It will offer considerable scope for the establishment of down stream products in the heavy chemicals field as follows :—

- (a) Olefins (Ethylene)
- (b) Acrylonitrile
- (c) Synthetic rubber
- (d) Polythene
- (e) Ethylene Glycol
- (f) Polypropylene
- (g) Acrylic fibre
- (h) Detergent alkylate

In this district 25 new industries can be set-up for the manufacture of chemical and chemical based products taking advantage of its central location. It can provide employment to the tune of 2,750 persons.

9.2 In the following table, an attempt has been made to study the occupation-wise employment potential of the area.

TABLE 49
Employment potential occupation-wise

Occupational details	Employment potential	Percentage to total
Professional, Technical & related workers	425	2.6
Administrative, Executive & Managerial workers	50	0.3
Clerical & related workers	667	4.2
Production & related workers, transport equipment operators and labourers	14950	92.9
TOTAL	16092	100.0

9.3 From the above table it will be seen that Kanpur area can provide sizeable employment to production process and related workers, transport equipment operators and labourers to the tune of 14,950 persons, which is 92.9 per cent of the total employment potential. This is followed by clerical & related workers (667) and professional, technical & related workers (425).

CHAPTER X

RECOMMENDATIONS FOR ACTION

10.1 As a result of the findings of this survey, it is felt that certain actions are indicated in fields like job development, expansion of small enterprises and industries, promotion of self-employment in rural areas, reorientation of training and apprenticeship programmes, conduct of further studies and rendition of effective career advice. These are discussed below :—

A. JOB DEVELOPMENT

10.2 The process of job development which forms an integral part of the Employment Exchange Service involves selective placement service in both employers as well as qualified applicants. Although this work had so far been undertaken by the local employment officers, special job development officers are now being gradually appointed to undertake this important work. One of the essential pre-requisites of a successful programme of job development is to have advance knowledge of prospective manpower needs. The area skill survey has revealed information about industries, sectors and other projects which are expecting sizeable manpower needs in the coming years. It would, therefore, be necessary for the Employment Service personnel to establish contacts with employers pertaining to such fields (refer chart below) with a view to obtaining precise information about such aspects as responsibilities and duties of jobs, skill or training requirements, terms and conditions of service, likely dates when jobs are expected to come up etc. The next step in the process would be to examine how far the employers needs could be met from amongst those registered with the local employment exchange. In this regard the need for circulating the jobs to other exchange areas or the need for improving/modifying current training apprenticeship programmes may also have to be examined.

Fields requiring job development	Important categories of personnel
<i>Manufacturing</i>	
Rice, atta, flour	Grain millers
Bakery products	Bakers, salesmen
Edible fats & oils	Salesmen, oil expellerman, filter press operator
Cotton spinning & weaving in mills	Jobbers, spinners, piecers, doffers, reelers, warper & sizers, weavers
Cotton weaving in powerloom	Weaver powerloom
Cotton weaving in handloom	Weaver handloom
Carpet & daries	Winders, carpet & dari weavers
Textile garments	Master cutter (garments), tailors, presser
Sawing & planing of wood	Wood-sawyer—machine wood treater
Printing & publishing	Compositors, job printers, lino operator, type caster, printing pressman, proof readers
Currying & canning of hides & skins	Flesher, de-hairers, hide & skin setters, leather curriers, leather glazers, tanners
Shoes & leather foot-wear	Shoe makers, closers - shoe upper, pattern makers - shoe, cutters
Basic industrial chemicals	Pressman, Cookers & roasters, filter & separator operators, still & reactor operators, acid plant operators
Medicines, pharmaceuticals & cosmetics	Chemical engineers, pharmacists chemists, ampoule fillers, ampoule sealers, packers
Bricks & tiles	Bricks & tiles moulder - kilnman, clerks

Fields requiring job development	Important categories of personnel
Smelting, refining & re-rolling of iron & steel	Mechanical engineers, furnace operators, rolling mill operators, moulders, wire drawers, blacksmiths, hammermen, turners, machine tool operators, fitters electricians, wiremen and welders.
Iron & steel furniture	Clerks, watchmen, fitters, sheet metal workers, welders
Metal products such as tin cans	Machinists, turners, fitters, sheet metal workers, tinsmith, welders
Sundry hardwares	Clerks, watchmen, moulders, wire drawers, blacksmith, powerhammer operators, machinists, turners, grinders, fitters and welders
Agricultural implements & oil engines	Mechanical engineers, clerks, machinists, turners, fitters
Repairing & servicing of motor vehicles	Automobile engineers, accountants, office superintendents, office assistants, accounts clerks, clerks watchmen, carpenters, blacksmith, hammermen, turners, gear cutters, foremen, motor vehicle repairing, motor vehicle mechanics, fitters automobile electricians, welders, dent removers
<i>Electricity, gas, water & sanitary services</i>	
Generation & transmission of electric energy	Electrical engineers, draughtsmen electrical, technicians-electrical engineering, lineman, electricians, clerks, accountants
<i>Trade & Commerce</i>	
Wholesale & retail trading	Salesmen, accounts clerks
Banking	Accountants, clerical supervisors, clerks, cashiers
<i>Transport, storage & communication</i>	
Transporting by motor vehicles	Drivers, conductors, booking clerks, traffic inspectors, mechanic motor vehicles
Telephone communications	Clerks, telephone operators, telephone mechanics, linemen - telephone
<i>Services</i>	
Public services in Government departments	Clerks, typists, stenographers, draughtsmen
Educational services	Teachers, clerks
Public health & medical services	Physicians & surgeons, nurses, midwives & health visitors, vaccinators, dressers
Hotels & restaurants	Cooks, bearers, waiters

B. FIELDS FOR INDIVIDUAL ENTREPRENEURSHIP

10.3 The survey has revealed that in the light of economic characteristic and employment market conditions of the area, several individuals or a group of individuals have been able to build up and nurture enterprises which have not only provided productive avenues for self-employment to active proprietors & partners, sizeable wage employment was also created by such enterprises. It is felt that the under-mentioned fields have considerable potential for future expansion and promotion of direct as well as indirect employment opportunities in the area :—

Fields

Rice, atta, flour
 Baker products
 Edible fats & oils
 Sweet meat & condiments

Cotton weaving in handloom
 Cotton weaving in powerloom
 Carpets & daries
 Hosiery & knitted fabrics
 Embroidery & crepe lace
 Textile garments
 Wood & wooden products
 Printing & publishing
 Leather & leather products
 Terpentine, synthetic, resin & plastic
 Bricks & tiles
 Smelting, refining & re-rolling of iron & steel
 Metal products such as tin cans
 Sundry hardwares
 Agricultural implements & oil engines
 Repairing & servicing of motor vehicles
 Wholesale & retail trading
 Transporting by motor vehicles
 Hotels & restaurants

10.4 In order to motivate potential entrepreneurs, following measures may be taken up by the concerning agencies and departments :—

- (i) Dissemination of information by employment exchanges, industries, departments and other organisations.
- (ii) Identification of unemployeds with a potential for entrepreneurship and with requisite background.
- (iii) Establishment of consultancy services which will undertake preparation of project reports and handle matters connected with completion of procedures and formalities for setting up of enterprises.
- (iv) Mobilisation of financial resources through banking and other financial institutions on easy terms.
- (v) Arranging raw materials and other requisites.
- (vi) Development of marketing facilities.

C. REORIENTATION OF TRAINING AND APPRENTICESHIP PROGRAMME

10.5 The draft Fifth Five Year Plan has envisaged that the requirements of craftsmen might appropriately be assessed at the area level. This is so because 'the heterogeneity of craftsmen skills' the diverse sources of their supply, lack of uniformity in the duration, content and level of training make the estimation of demand for craftsmen difficult. This survey at the area level has brought out an assessment of craftsmen needs and actions could be initiated on the following lines for reorienting training and apprenticeship programme.

(i) *Upgrading of skills*

Due to modern technological changes which are gradually creeping in the industries, it may be necessary to develop higher skills in various trades. Actions are, therefore, needed for providing opportunities for re-training and instituting refresher courses to develop higher skills to work on new type of machinery.

(ii) *Strengthening of training and apprenticeship*

The survey has revealed that in respect of occupations mentioned below, there is a need for strengthening the existing training or apprenticeship facilities with a view to meet future demands :—

Moulder
Carpenter

Blacksmith
Machinist
Miller
Grinder
Welder (Gas & Electric)

(iii) *Modifications in the curriculum of different designated trades*

The modifications necessary to be made in the curriculum of different designated trades so as to meet the needs of the local employers is as indicated below :—

(a) *Electrician*

- (1) Syllabus should include High-Voltage Circuits, connection & maintenance of high-voltage equipments.
- (2) More practice may be given in the connection of rectifiers and transformers.
- (3) A short course on automobile wiring testing and maintenance of auto electrical equipments may be introduced.
- (4) More practice on DC & AC winding may be given to the trainees or a course on Armature Winding may be introduced.
- (5) In general all round improvement in theoretical and practical training is needed but more emphasis may be given to practical training.

(b) *Wireman*

- (1) Practical training on over head line work, connection and fault location etc. may be included in the syllabus.
- (2) Syllabus should also include high voltage equipment and their connections & maintenance.
- (3) Workshop calculation & science syllabus may be revised so as to suit the intake qualifications.
- (4) More emphasis may be given for practical training during the institutional training.
- (5) A separate course may be introduced on cable jointing after preliminary training in Wireman Course.

(c) *Moulder*

Preparation of plastic moulds, polishing of plastic moulds, and plating moulding also should be included in the Moulders syllabus.

(d) *Plumber*

Fitting of water supply and drainage pipe should be included in the syllabus. Also practical training in these skills can be with city water supply system so as to receive actual practice by the trainees.

(e) *Other trades*

Regarding all other trades more emphasis should be given for practical training.

(iv) *New trades to be designated under Craftsmen Training Scheme/Apprenticeship Training Programme :*

As Kanpur is predominantly textile area it is felt that the following more trades in the textile group may be brought under the Apprenticeship Programme :

- (1) Winder/Reeler
- (2) Sizer (front and back)
- (3) Warper (front and back)
- (4) Drawer
- (5) Knitter
- (7) Sam

In view of the diversified needs of changing industrial occupations, the following new trades also need to be introduced at the Industrial Training Institute or included in the Apprenticeship Training Programme for which there is likely to be enough demand in the area in the near future :

- (1) Telephone Mechanic
- (2) Telephone Operator
- (3) Pump Driver/Attendant
- (4) Armature Winder
- (5) Pipe Fitter (water works)
- (6) Electrical Fitter

D. FUTURE STUDY

10.6 Since the present survey is a pioneer study of its type and cannot hope to encompass all aspects, few suggestions are put forward which require further investigation/study :

- (i) The first aspect requiring study in respect of assessing as to what extent the industry was able to utilise the craftsmen presently being turned out by the training institutions and if such trained personnel were unable to meet the skill requirements, in what aspects the training programmes should be improved and reoriented. In this connection a study to find out whether formal apprenticeship programmes need modernisation to meet the demands for new skills and occupations would seem to be important.
- (ii) The second aspect for study would be to undertake repeat survey of the district with a view to assessing the implementation of the findings of this survey particularly in respect of the expansion plans on the one hand and of setting up of new industries in the area on the other. The repeat survey may also bring out data on the removal of factors hindering expansion or fuller utilisation of installed capacity. Such a survey could be taken at an interval of 5 years.

E. VOCATIONAL GUIDANCE AND CAREER ADVICE

10.7 The primary functions of University Employment Information & Guidance Bureau and Vocational Guidance units at major Employment Exchanges is to organise individual and group guidance programmes in order to canalise youths and unemployed to channel where employment opportunities exist or are expected to grow up in the near future. Effective function of the V.G. units and university bureaux has however been undermined due to lack of precise data about likely manpower needs of the area by skills. V.G. staff has, therefore, been rendering advice on vague notions about prospective employment opportunities and not on hard facts. The following information thrown up by Area Skill Surveys regarding the manpower needs of the area by various occupations during the next five years can, therefore be of immense value in rendering effective V.G. and career advice service :—

- (1) Fitter
- (2) Turner
- (3) Machinist
- (4) Miller
- (5) Grinder
- (6) Moulder
- (7) Blacksmith
- (8) Sheet metal workers
- (9) Welder (Gas & Electric)
- (10) Electricians
- (11) Lineman (light & power)
- (12) Wireman (light & power)
- (13) Carpenter
- (14) Plumber
- (15) Mechanic Radio & TV
- (16) Millwright
- (17) Boiler attendant

- (18) Mechanic textile machinery
- (19) Mechanic Refrigeration & air conditioning
- (20) Mechanic automobile
- (21) Draftsman (Civil & Mechanical)

10.8 "Let self employment and not wage paid employment be your aim" is a slogan for solving the problems of employment as it is not possible to provide wage paid employment to all. Information about avenues of self employment in rural areas need, therefore, to be disseminated to the unemployed by Vocational Guidance Units functioning at the Employment Exchanges to persuade them to take up the various fields in which scope for self employment exist. Some of the important fields in which unemployed persons can be diverted to take up self employment are :—

- (1) Dairy farming & milk selling
- (2) Spinning and weaving
- (3) Poultry farming
- (4) Carpentry and wood work
- (5) Retail selling
- (6) Nursery and vegetable cultivating
- (7) Soap making
- (8) Tanning and seasoning of leather
- (9) Blacksmithy
- (10) Piggery and sheep rearing
- (11) Tailoring
- (12) Oil expelling
- (13) Brick laying
- (14) Shoe making and repairing
- (15) Repairing and servicing of diesel engines and agricultural implements
- (16) Basket making
- (17) Khandsari and gur making
- (18) Pottery
- (19) Laundrying, dyeing and bleaching
- (20) Bidi making
- (21) Fishing and boating
- (22) Food preservation
- (23) Food and beverages processing
- (24) Sheet metal working
- (25) Bicycle repairing
- (26) Candle making, and
- (27) Match making

10.9 While trained and experienced craftsmen would be needed to take up such work as carpentry blacksmithy, tailoring, repairing and servicing of diesel engines and agricultural implements, it will also be necessary to organise short terms training courses particularly in the fields of dairy farming, poultry piggery & sheep rearing, food & beverages processing, soap making, tanning & seasoning of leather, food preservation and match making and providing incentives to the unemployed for taking up self employment in the rural areas.

F. DEVELOPMENT OF INDUSTRIES

10.10 The survey has revealed that shortage of raw material, finance, etc., were some of the important factors hindering current production and expansion of industrial establishments. Avenues for self employment can be developed only by providing financial assistance to the unemployed persons, besides developing adequate transport facilities, marketing, etc. This information can be of immense value to the industries department in opening new industries in the area.

G. EMPLOYMENT MARKET INFORMATION PROGRAMME

10.11 The employment data thrown up by the EMI programme is considered as an important barometer of the level of changes in employment in organised sector of the country. The survey has, however, revealed that the frame of establishments which forms the basis for collecting the data from the employers suffers from lack of comprehensiveness. The gap in employers register maintained under the EMI programme and as built up under the Area Skill Survey Unit is as follows :—

	Number of establishments under	
	Area Skill Survey	Employment Market Information Programme
A. Public Sector	509	386
B. Private Sector	7782	2314
(i) Bigger establishments employing 10 or more workers	2670	1509
(ii) Smaller establishment employing 5-9 workers	5112	805
GRAND TOTAL (A+B)	8291	2700

APPENDICES

APPENDIX I

GOVERNMENT OF INDIA
MINISTRY OF LABOUR (D.G.E. & T.)

A. S. I
Confidential

AREA SKILL SURVEY

Employers' Schedule

(Information reported on this form will be treated as strictly confidential and will not be revealed to any unauthorised person, nor published in such a manner that data relating to individual establishments can be identified).

Name & address of Establishment State
District
 Telephone No. Urban/Rural
 Year of establishment Sector (Public/Private)

Nature of Economic Activity

I. Total no. of employees on pay rolls (including unskilled as well as proprietor-owners and working partners etc.) as at the end of 31-3-1974.

II. If the establishment is engaged in seasonal activity, approximate dates of commencement and closure of season be indicated:
Commencement
Closure

III. TRAINING

Training/Apprenticeship programmes within the establishment: (Information for trainees under the Apprentices Act 1961 should be given separately).

Occupational code	Description of trade	Entry qualifications		Duration	In take capacity	No. trained during 1973			No. of persons likely to be trained in the next 5 years
		Academic	Other			Men	Women	Total	

IV. PERSONS EMPLOYED

(a) No. of persons employed by occupation & sex (This will include working proprietors and partners etc.)

Occ. Code No.	Occupation	No. of regular employees on roll at the end of corresponding quarter 7 years ago 31-3-1967	No. of regular employees on roll at the end of 31-3-1974			In case of seasonal industries No. of persons employed on seasonal basis in the last season	
			Men	Women	Total	Max. no. of seasonal employees on any one day in the season	Minimum
1	2	3	4	5	6	7	8

(b) Out of persons shown in col. 6 indicate below the number of working proprietors & partners :

Occ. Code No.	Type of work performed	Qualifications	Number
(1)	(2)	(3)	(4)

V. EXPANSION

- (a) Expansion plans including opening of Branch/Units and sister or new concerns etc. within the area :—
 (b) Factors hindering existing production, expansion and full utilisation of installed capacity :—

S.No	Factor	Remarks
0.	Licence to set-up new units :	
1.	Foreign exchange/import licence	
2.	Raw material	
3.	Land acquisition	
4.	Non-availability of skills	
5.	Shrinkage in demand	
6.		
7.		
8.		

(c) Assuming that the above limiting factors are over-come and expansion programme materialises, indicate future man-power demands :—

Occ. Code No.	Occupation	Educational requirements		Additional manpower demands during next 5 years 31-3-1979
		General	Technical	
1	2	3	4	5

VI. MANPOWER SHORTAGES :

(Indicate skills in which shortage of work-people was experienced during last one year).

Occ. Code No.	Occupation	Qualifications	Extent of shortage (indicate No.) State whether of a persistent or casual nature	Steps taken to overcome short-ages (such as Institutional Training or Apprenticeship Programme) Suggestion for future action	No. on L.R. of Local Emp. Exch.	Interviewer's assessment about reasons for shortages**
1	2	3	4	5	6	7

** (1) Low wages offered, (2) Housing difficulties, (3) Unduly high qualifications and experience prescribed, (4) Commutation difficulties, (5) Dearth of suitable applicants available locally, (6) Future prospect, (7) Migration to other areas, (8) No migration from other areas.

Name & Signature
of Investigating Officer

Name & Signature of person
providing information

Date:

Date:

AS - II
Confidential

GOVERNMENT OF INDIA
MINISTRY OF LABOUR (D.G.E. & T.)

Area skill survey

SCHEDULE FOR EMERGING ESTABLISHMENTS

(Information reported on this form will be treated as strictly confidential and will not be revealed to any unauthorised persons, nor published in such a manner that data relating to individual establishment can be identified).

Name of Employer:

State :

Address :

District :

Urban/Rural :

Sector :

Telephone No.

Nature of Economic Activity :

I.C.L. Code :

1. (a) Date of start of construction stage :

(b) Likely date of commencement of Production/Activity :

II. Likely No. of persons to be employed (Including working Proprietors and Partners).

Occ. Code No.	Occupation	Educational requirements		No. of persons including working Partners & Prop. likely to be employed during next 5 years
		General	Technical	
1	2	3	4	5

Name & Signature of
Investigator/Officer

Name & Signature of
persons providing information

Date:

Date:

GOVERNMENT OF INDIA
MINISTRY OF LABOUR (D.G.E.&T.)

Area Skill Surveys

(Schedule for institutions imparting Professional and Technical Education)

1. *Identification Particulars*

Name & Address of Institution:

Name & Telephone No.
of persons providing information:

State:
District:

II. PARTICULARS OF PROFESSIONAL & TECHNICAL EDUCATION:

A. **CERTIFICATE LEVEL.**—Record separately for (i) Engineering trades, (ii) Vocational trades & (iii) Others.

INTAKE									OUTTURN		
Sl. No.	Trade/ Course	Duration of course	Month of commencement of session	Qualification for admission	Medium of selection	No. of seats	Fee	Scholarship/ stipend	1973 (Actual)	During next five years	Remarks
1	2	3	4	5	6	7	8	9	10	11	12

Important Instructions:

- (i) Indicate any new course proposed to be introduced during the next five years.
- (ii) Indicate whether recognised or unrecognised in remarks column.
- (iii) Out-turn from unrecognised institutions should not be recorded.
- (iv) Information on stipend/scholarship in col. 9 should give details of amount paid per month, duration & basis of award etc.

B. **DIPLOMA LEVEL.**— Record separately for (i) Engineering, (ii) Technological, (iii) Medicine and (iv) others.

INTAKE									OUTTURN		
Sl. No.	Trade/ Course	Duration of course	Month of commencement	Qualification for admission	Method of selection	No. of seats	Fee	Scholarship/ Stipend	1973 (actual)	During next 5 years	Remarks
1	2	3	4	5	6	7	8	9	10	11	12

C. GRADUATE LEVEL.—Please list out courses or subjects of study under following sub-heads : (a) Engineering & Technology, (b) Medicine & Pharmacy, (c) Business Administration & Personnel Management, (d) Social & Labour Welfare, (e) Teaching, (f) Agriculture, Veterinary Science, Animal Husbandry & Dairying, (g) Other's excluding Arts & Humanities.

INTAKE								OUTTURN			
Sl. No.	Trade/Course	Duration of course	Month of commencement of session	Qualification for admission	Method of selection	No. of seats	Fee	Scholarship/Stipend	1973 (actual)	During next 5 years	Remarks
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.

D. POST-GRADUATE & DOCTORATE LEVEL.—Please list out courses or subjects of study separately under following sub-heads: (a) Engineering & Technology, (b) Medicine, (c) Business Administration & Personnel Management, (d) Social & Labour Welfare, (e) Teaching, (f) Science Viz., Physics, Chemistry, Botony, Zoology, Bio-chemistry, Biology, Geology, Mathematics, Statistics, Minerology, Oceanography, Pharmaceutical Chemistry & Allied subjects, (g) Agriculture, Veterinary Science, Animal Husbandry & Dairying & (h) All others including Arts and Humanities.

INTAKE								OUTTURN			
Sl. No.	Trade/Course ¹	Duration of course ²	Month of commencement of session	Qualification for admission	Method of selection	No. of seats	Fee	Scholarship/Stipend	1973 (actual)	During next 5 years	Remarks
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.

Name & Signature of
the Officer/
Investigator:

Date:

Name & Signature of
the Officer
providing infor-
mation.

Date:

GOVERNMENT OF INDIA
MINISTRY OF LABOUR (D.G.E. & T.)

Area Skill Surveys

Educated unemployment & channels of self-employment in Rural Areas

Name & Address of Block
Development Office
Population of Block
Number of Villages in the Block
Name of village selected for study.

Town District State

I. Number of educated unemployed persons:—

Occ. No.	Type of Work	Educational level	No. of persons seeking wholetime work	Period of unemployment			No. registered with Emp. Exch.	Remarks
				Upto 6 months	6 to 12 months	More than 12 months		
1.	2.	3.	4.	5.	6.	7.	8.	9.

II. Existing avenues of self-employment (other than agriculture in the village):—

I.C.L. No.	Type of Work	Occ. code No.	No. of persons engaged		No. of seasonal workers		Difficulties faced & assistance needed
			Full time	Part time	Minimum	Maximum	
1.	2.	3.	4.	5.	6.	7.	8.

III. Additional opportunities for self-employment that could be created in the light of modernisation of agriculture, local produce & other resources & expanding need for maintenance & other services:—

ICL No.	Type of work	Occupation Code No.	Approximate No. of persons that could be absorbed	Type of assistance of facilities (Such as electricity, loan, machinery, training, marketing etc.) needed if any
1.	2.	3.	4.	5.

Indicate sources from which information for Item III above has been collected:

Signature of the Investigating Officer/Incharge.

Date:

GOVERNMENT OF INDIA
MINISTRY OF LABOUR
(D.G.E. & T.)

Area Skill Surveys

Schedule for assessing impact of employment Generating Programmes viz. Rural Work Programme, Marginal Farmers and Agricultural Labour, Small Farmers Agency, Pilot Research Projects in Growth Centres, etc.

(Separate Schedules to be completed in respect of each scheme under each type of Programme).

1. Description of Scheme operative within the District:
Scheme:
No. of Villages covered
Names of villages
2. Total amount sanctioned and spent so far:
(Total Amount sanctioned (Rs.)
Amount spent so far).
3. (i) Date of commencement of work.
(ii) Date of completion (of likely date of completion)
4. Wage Rates: (specify occupation/skill)
Skilled
Unskilled
5. Methods of execution of work.
(i) Through Contractor
(ii) Directly by the Department
6. Employment expected to be generated:
(a) Employment of a regular nature to be generated after completion of scheme/project/works (Maintenance Staff).

} Wage rate

N.C.O. Code No.	Occupation	Approximate No.	N.C.O. Code No.	Occupation	Approximate No.
1.	2.	3.	1.	2.	3.

(b) Man-days of employment to be generated during the Construction phase of the Schemes/Projects/Works.

	<i>Type of Employment</i>	<i>Number of man-days</i>
(i)	Skilled	
(ii)	Unskilled.	

7. (a) Type of workers for whom shortages were experienced in executing the work.

<i>Occupation</i>	<i>Number</i>

(b) How the above shortages were met or are proposed to be met.

8. Other Remarks, if any.

Name and Signature of persons providing information.

Name and Signature of the investigating officer.

Date:

Date.

GOVERNMENT OF INDIA
MINISTRY OF LABOUR
(D.G.E. & T.)

Area Skill Surveys

(Employers: Schedule for Private Establishments having 5-9 Workers)

Name and address of Establishment: State:
Year of Establishment: District:
Nature of Economic Activity: Urban/Rural.

I. No. of employees on pay rolls (including unskilled as well as proprietor-owners and working partners) as at the end of 31-3-74

Occ. Code	Occupation	No. of regular employees on roll at the end of corresponding quarter 7 years ago (31-3-1967)	No. of regular employees on roll at the end of (31-3-1974)			No. of persons employed on seasonal basis in the last session	
			Men	Women	Total	Minimum	Maximum
1.	2.	3.	4.	5.	6.	7.	8.

II. No. of working proprietors & partners (included in column 6 of Item I).

Occ. Code	Type of Work performed	Qualification	Number
1.	2.	3.	4.

III. If the establishment is engaged in seasonal activity approximate dates of commencement and closure of season be indicated :

	Commencement	Closure
Name & Signature of Investigating Officer.		Name & Signature of persons providing information.
Date:		Date:

GOVERNMENT OF INDIA
MINISTRY OF LABOUR
(D.G.E. & T.)

Area Skill Surveys

Manpower content of the development plans & other programme included in the Fifth Plan for the District of _____

A

1. Name of the Department:
2. Name(s) of the Office(s) located in the District:
3. Scheme-wise details of manpower contents:

Brief particulars of the scheme included in the Fifth Plan	Occupation-wise additional manpower requirements			Remarks	
	Occupation	Qualifications			
		General	Technical		No. required by March 1979
1.	2.	3.	4.	5.	6.

Signature of the Investigating Officer:

Name & Signature of persons providing information

Date:

Date:

GOVERNMENT OF INDIA
MINISTRY OF LABOUR
(D.G.E. & T.)

Area Skill Surveys

Scope for employment opportunities that could be generated in the light of economic characteristics, availability of raw materials, traditional crafts of the area.

1. Name & address of the person whose views recorded:
2. Brief particulars of employment generating scheme that could be launched & the existing conditions of the industry:
3. Type of assistance or facilities (such as electricity, loan, machinery, training, etc. needed):
4. Approximate number of persons that could be provided employment (including self-employed) by March, 1979:

Occupation

Approximate No. of persons that could be absorbed.

5. Type of workers for whom shortage is likely to be experienced:
6. How the shortage is proposed to be met?
 - (a) If training facilities exist: suitability of trained personnel:
 - (b) Availability of trained personnel in the nearby area:
7. Reasons if known, for not taking up the scheme so far:
8. Ancillary industries/small units if any, that could be taken up due to the coming up of the proposed industry & the approximate No. of persons that could be absorbed by skill:

Occupation

Approximate No. of persons

Signature of the Officer with designation who has collected the information

Name & Signature of the persons providing information

Date:

Date:

PROFORMA 'A'

GOVERNMENT OF INDIA
MINISTRY OF LABOUR (D.G.E. & T)

Area Skill Surveys

Proforma for collecting information under the Qualitative Skill Survey Programme :

- A. General information about the Establishment
- A.1 Name of the Establishment
- A.2 Address:
- A.3 Standard Industrial Classification Code No.
Major Code No.
Minor Code No.
- A.4 Type of Product.
- A.5 Nature of work : Piece work/Assembly/Mass Production/Serviceing
- A.6 Size of the Plant Small/Medium/Large
- A.7 Sector Public/Private
- A.8 Total Number of Persons Employed
- A.9 Total Number of Workers Employed (Categorisation)

Highly Skilled:
Skilled:
Semi-Skilled:
Any other category:

PROFORMA 'B'

Details regarding the selection Procedure being adopted for the recruitment of workers :

- B.1 Selection Preference (Indicate the order of preference and the approximate recruitment percentage against the following:—
- By Direct recruitment of experienced workers.
- By Direct recruitment of craftsmen from ITIs.
- By direct recruitment of Apprentices trained under the Act.
- By training under a formal training programme in the establishment.
- Any other source.
- B.2 Whether any test is conducted for the selection purpose . If so, give details.
- B.3 Any other selection criteria.

C. Details regarding Training Activities for Workers in the Establishment.

C.1 Whether any formal/informal training is being imparted to the fresh recruits/existing workers in the establishment. Yes/No

C.2 If yes, details of training being imparted in the establishment may be indicated in the following:

Sl. No.	Type of Trg. (Tick-off)	Type of workers (Tick-off)	Category of Workers	Approximate intake	Period of Training
1.	On-the-job	Existing Potential			
2.	Off-the-job	Existing Potential			
3.	Integrated	Existing Potential			

C.3 Details of training facilities available in the establishment:

(a) Physical facilities (give details)

(i) Accommodation :

(ii) Equipment ;.

(b) Training Personnel (Category-wise details)

(i)

(ii)

(iii)

C.4 Any other relevant information regarding the training activities for workers.

D. Information regarding the additional training needs:

Sl. No.	Occupation/ Trade in which trained workers are needed by the Estt.	Level	No. required to be trained during		Prescribed Minimum qualifications/Ex- perience				Reasons for increased demand of the workers Technical Development
			1975-77	1977-79	Educa- tional	Technical	Experi- ence	Jobs specifica- tions	
1	2	3	4	5	6	7	8	9	10

PROFORMA 'A'

E. Information regarding job specification prescribed.

Sl. No.	Occupation/Trade	Grade/Level	Prescribed job specifications in respect of		
			Skills	Knowledge	Other requirements, if any
1	2	3	4	5	6

REMARKS

Mention here the gist of discussions held with the employer regarding changes in the curricula etc., separately for each trade.

Name & Signature of the Officer Collecting information.

Name & Signature of the Officer providing information.

Appendix II (Part A)

Distribution of Establishments by broad types—1971 Census

State/District/City	Total Rural Urban	(a) Govt. or Quasi- Govt. (b) Private (c) Co-op- erative	Total No. of Estts.	Manufacturing, Processing or Servicing Establishments			Trade or Business Establishments			Other Establishment		
				Registered Factories	Unregis- tered Fac- tories	House- hold In- dustries	Whole- sale	Retail	Others	Educational Insti- tutions	Public Health Institutions	Others
1	2	3	4	5	6	7	8	9	10	11	12	13
	Total	A	4233	23	45	..	5	201	162	1877	268	1652
		B	59306	691	11361	6700	2602	23653	3245	702	1390	8962
		C	249	8	22	..	8	33	12	30	7	129
Total (A+B+C)			63788	722	11428	6700	2615	23887	3419	2609	1665	10743
	Rural	A	2354	3	13	..	4	52	47	1406	153	676
		B	20485	82	2111	4937	105	7490	325	183	385	4867
		C	110	2	7	..	4	10	6	13	1	67
Total (A+B+C)			22949	87	2131	4937	113	7552	378	1602	539	5610
	Urban	A	1879	20	32	..	1	149	115	471	115	976
		B	38821	609	9250	1763	2497	16163	2920	519	1005	4095
		C	139	6	15	..	4	23	6	17	6	62
Total (A+B+C)			40839	635	9297	1763	2502	16335	3041	1007	1126	5133

Appendix II (Part B)

Industry-wise distribution of establishment by size of Employment, 1971, Census

Category	1 Person	2-4 Persons		5-9 Persons		10-19 Persons		20-49 Persons		50-59 Persons	
	Units	Units	Persons employed	Units	Persons employed	Units	Persons employed	Units	Persons employed	Units	Persons employed
Industry Divisions	2	3	4	5	6	7	8	9	10	11	12
Manufacturing	7006	9265	23505	1654	10064	509	6136	218	6214	84	5178
Trade & Commerce	17255	11067	26683	1210	7228	260	3111	71	2175	10	659
Others	7367	5318	13786	1230	7560	483	6000	285	7962	102	6728
Grand Total	31628	25650	63974	4094	24852	1252	15247	574	16351	196	12565

Appendix-II (Part B)—(Concl'd.)

Category	100+ Persons		100-299 Persons		300-499 Persons		500+ Persons		Persons unspecified	Total	
	Units	Persons employed	Units	Persons employed	Units	Persons employed	Units	Persons employed		Units	Persons employed
Industry Divisions	13	14	15	16	17	18	19	20	21	22	23
Manufacturing	..	..	69	10247	5	1776	20	61809	20	18850	131935
Trade & Commerce	14	3295	..	..	..	..	..	..	34	29921	60406
Others	72	25308	..	..	..	..	..	..	160	15017	74711
Grand Total	86	28603	69	10247	5	1776	20	61809	214	63788	267052

Appendix III

Workers and non-workers according to main activities classified by sex and Age group—1971 Census

1	Age-group	Total Population			Total Workers	
		P	M	F	M	F
	2	3	4	5	6	7
TOTAL	Total	2996232	1653494	1342738	841929	38239
	0—14	1244943	660278	584665	18814	1544
	15—19	261680	149542	112138	60522	2097
	20—24	247965	134425	113540	100824	4059
	25—29	232781	126299	106482	117727	4915
	30—39	385671	212677	172994	206856	9769
	40—49	288617	170274	118343	165906	7948
	50—59	179995	109742	69253	103789	4729
	60+	154882	89880	65002	67459	3171
	A.N.S.	698	377	321	32	7
RURAL	Total	1713901	925921	787980	476142	24777
	0—14	747621	397454	350167	13862	1288
	15—19	136018	77675	58343	33862	1477
	20—24	124367	63452	60915	54269	2429
	25—29	123493	64029	59464	61565	3060
	30—39	212960	112776	100184	110848	6244
	40—49	159886	89590	70296	88168	5001
	50—59	106788	61901	44887	60035	3095
	60+	102144	58706	43438	48511	2180
	A.N.S.	624	338	286	22	3
URBAN	Total	1282331	727573	554758	365787	3462
	0—14	497322	262824	234498	4952	256
	15—19	125662	71867	53795	21660	620
	20—24	123598	70973	52625	46555	1630
	25—29	109288	62270	47018	56162	1855
	30—39	172711	99901	72810	96068	3525
	40—49	128731	80684	48047	77738	2947
	50—59	72207	47841	24366	43754	1634
	60+	52738	31174	21564	18958	991
	A.N.S.	74	39	35	10	4

Appendix III—Contd.

Workers and non-workers according to main activities classified by Sex and Age group—1971 Census

I		II		III		IV	
M	F	M	F	M	F	M	F
8	9	10	11	12	13	14	15
326204	7349	100489	14508	4842	206	213	9
7463	297	5134	764	658	33	12	..
23573	277	11808	986	503	12	18	..
35102	527	12497	1557	511	7	32	..
39511	709	13128	1909	551	14	23	1
74343	1736	22886	3763	884	31	53	3
62469	1630	17054	2896	796	36	42	1
44790	1152	10712	1663	525	41	21	1
38936	1019	7268	969	413	31	12	3
17	2	2	1	1	1	..	..
318493	7193	95635	14054	3080	136	53	1
7280	288	4917	741	606	30	..	..
23084	269	11261	954	383	11	3	..
34216	517	11891	1524	320	5	9	..
39014	705	12539	1870	329	9	8	..
72668	1704	21821	3647	495	20	14	1
60807	1593	16189	2780	414	20	11	..
43661	1124	10163	1607	277	21	7	..
37747	991	6852	930	255	20	1	..
16	2	2	1	1	..	..	..
7711	156	4854	454	1762	70	160	8
183	9	217	23	52	3	12	..
489	8	547	32	120	1	15	..
886	10	606	33	191	2	23	..
497	4	589	39	222	5	15	1
1675	32	1065	116	389	11	39	2
1662	37	865	116	382	16	31	1
1129	28	549	56	248	20	14	1
1189	28	416	39	158	11	11	3
1	..	..	..	..	1	..	..

Appendix III—Contd.

Workers and non-workers according to main activities classified by Sex and Age group—1971 Census

V(A)		V(B)		VI		VII	
M	F	M	F	M	F	M	F
16	17	18	19	20	21	22	23
26503	1119	122429	1861	6780	86	88944	1450
767	84	1906	149	98	3	1205	22
2680	93	8514	168	407	14	6000	30
3850	103	16434	211	723	8	11761	82
3546	116	18311	239	980	10	12493	119
6011	266	30685	469	1937	25	22053	283
4683	232	27096	344	1445	14	17160	341
2858	122	14461	176	778	7	11136	292
2108	103	5019	104	410	4	7133	281
..	..	3	1	2	1	3	..
11051	614	9337	890	2284	5	10755	187
259	63	328	104	28	..	161	2
931	55	1041	97	126	1	832	1
1330	50	1472	117	248	..	1404	9
1435	55	1454	141	330	..	1471	10
2560	143	2331	230	699	1	2759	34
2157	126	1519	127	479	2	1957	36
1354	62	758	43	253	1	1237	48
1025	60	434	31	121	..	933	47
..	..	..	..	..	..	1	..
15452	505	113092	971	4496	81	78189	1263
508	21	1578	45	70	3	1044	20
1749	38	7473	71	281	13	5168	29
2520	53	14962	94	475	8	10357	73
2111	61	16857	98	650	10	11022	109
3451	123	28354	239	1238	24	19294	249
2526	106	25577	217	966	12	15203	305
1504	60	13703	133	525	6	9899	244
1083	43	4585	73	289	4	6200	234
..	..	3	1	2	1	2	..

Appendix III—Concl'd.

Workers and non-workers according to main activities classified by Sex and Age group—1971 Census.

VIII		IX		X	
M	F	M	F	M	F
24	25	26	27	28	29
35122	222	130403	11429	811565	1304499
145	3	1426	189	641464	583121
1528	10	5491	507	89020	110041
3991	40	15923	1524	33601	109481
5963	51	23221	1747	8572	101567
10883	49	37121	3144	5821	163225
8115	44	27046	2410	4368	110395
3577	19	14931	1256	5953	64524
920	6	5240	651	22421	61831
..	..	4	1	345	314
2773	10	22681	1687	449779	763203
7	1	276	59	383592	348879
125	..	1076	89	38813	56866
355	3	3024	204	9183	58486
494	1	4491	269	2464	56404
871	2	6630	462	1928	93940
560	1	4075	316	1422	65295
270	2	2055	187	1866	41792
91	..	1052	101	10195	41258
..	..	2	..	316	283
32349	212	107722	9742	361786	541296
138	2	1150	130	257872	234242
1403	10	4415	418	50207	53175
3636	37	12899	1320	24418	50995
5469	50	18730	1478	6108	45163
10012	47	30491	2682	3893	69285
7555	43	22971	2094	2946	45100
3307	17	12876	1069	4087	22732
829	6	4188	550	12226	20573
..	..	2	1	29	31

Appendix IV

Industry-wise Break up of Establishments according to Year in which they came up and Employment in them in 1974

Industry	1966 or Earlier		1967		1968		1969		1970		1971		1972		1973		Total	
	Estt.	Emp.	Estt.	Emp.	Estt.	Emp.	Estt.	Emp.	Estt.	Emp.	Estt.	Emp.	Estt.	Emp.	Estt.	Emp.	Estt.	Emp.
	Agriculture, Livestock	20	1107	1	54	3	18	5	33	6	124	3	61	4	22	4	27	46	1446
Manufacturing	1725	98134	110	6912	387	3752	317	7479	381	4907	281	3284	347	3741	533	4324	4081	132533
Construction	24	3566	3	407	2	144	..	..	3	213	3	392	6	335	8	446	49	5503
Electricity, gas, water & sanitary Services.	12	4896	2	1448	2	115	..	..	..	..	..	..	5	335	4	146	25	6940
Trade & Commerce	1314	16610	67	630	185	1634	148	1073	182	1288	134	1051	148	2376	187	1190	2365	25852
Transport, Storage & Communication.	75	13417	6	227	17	147	19	267	27	229	10	128	16	835	30	1726	200	16976
Services	881	67826	46	6070	111	1688	90	1775	121	1408	59	683	88	1535	129	3215	1525	48200
Total	4051	205556	235	15748	707	7498	579	10627	720	8169	490	5599	614	9179	895	11074	8291	273450
Public	316	104738	25	7973	17	1215	22	4606	26	849	26	859	59	3883	27	4349	509	128472
Private (Bigger)	1580	87467	91	7042	198	3313	148	3561	183	4316	176	3019	152	2842	142	2446	2670	114006
Private (Smaller)	2155	13351	119	733	492	2970	409	2460	511	3004	288	1721	412	2454	726	4279	5112	30772

Appendix V

Statement showing the Occupational Distribution of employees in selected industries as on 31st March, 1974

Description of Occupation	Agriculture, Live stock, forestry and fishing etc.	Production of rice, atta etc. by de-husking & milling	Bakery products	Butter ghee, cheese	Edible fats & oils	Hydro-generated oils (Vanaspatti)	Sweet meat & condiments etc.	Beverages	Tobacco products	Cotton spinning & weaving in mills
1	2	3	4	5	6	7	8	9	10	11
Physical Scientists	..	..	..	..	2	5	..	..	..	1
Physical Science Technicians	2	..	..	8	..	2	..	..	..	..
Architects, Engineers, Technologists and Surveyors	..	4	..	2	1	2	..	4	..	139
Engineering Technicians	23	1	..	1	..	1	..	3	..	31
Aircraft and ships officers	..	..	..	..	..	..	..	..	..	..
Life Scientists	62	..	..	..	..	..	..	..	..	3
Life Science Technicians	..	..	..	..	..	..	..	..	..	..
Physicians and Surgeons (including Dental and Veterinary Surgeons)	..	..	..	..	..	1	..	2	..	16
Nursing and other Medical and Health Technicians	286	..	..	1	..	..	..	..	..	2
Scientific, Medical & Technical Persons, other	..	..	..	..	..	..	..	..	..	..
Total:	373	5	..	12	3	11	..	9	..	192
Mathematicians, Statisticians & related workers	4	..	..	..	..	..	..	2	..	10
Economists & related workers	..	..	..	..	..	..	..	..	..	5
Accountants, Auditors and related workers	8	8	6	2	11	1	2	4	4	19
Social Scientists and related workers	..	1	..	..	1	..	..	..	..	40
Jurists	..	..	..	..	..	..	..	..	..	..
Teachers	..	..	..	..	..	..	..	..	..	13
Poets, Authors, Journalists and related workers	..	..	..	..	..	..	..	..	..	..
Sculptors, Painters, Photographers and related creative Artists	..	..	..	..	..	..	..	..	..	1
Composers and Performing Artists	..	..	..	..	..	..	..	..	..	..
Professional workers, n.e.c.	3	1	1	2	..	..	..	..	..	9
Total	15	10	7	4	12	1	2	6	4	97

Appendix V—Contd.

1	2	3	4	5	6	7	8	9	10	11
Elected and legislative officials	..	..	..	..	..	..	..	..	..	..
Administrative and Executive officials Government & Local Bodies	191		..	..	..	..	..	..	..	..
Working Proprietors, Directors and Managers, wholesale and retail trade	..	..	..	..	..	..	..	..	..	..
Directors and Managers, Financial Institutions	..	..	..	..	..	..	..	..	..	..
Working Proprietors, Directors and Managers, Mining Construction, Manufacturing and related concerns	..	329	132	9	177	5	181	69	64	182
Working Proprietors, Directors, Managers & related executives, Transport, Storage and communication	..	..	..	..	..	..	..	..	..	1
Working Proprietors, Directors and Managers other services	..	..	..	..	..	..	..	..	..	..
Administrative, Executive and Managerial Workers, n.e.c.	..	..	..	..	..	..	..	..	..	..
Total	191	329	132	9	177	5	181	69	64	183
Clerical and other Supervisors	12	1	3	31	4	9	..	2	1	237
Village officials	3	..	..	..	..	..	..	..	..	..
Stenographers, Typists, Card and Tape punching operators	2	3	4	..	2	2	..	3	2	75
Book-keepers, Cashiers and related workers	2	112	5	7	42	1	1	8	8	33
Computing Machine Operators	..	..	..	..	..	..	..	..	..	6
Clerical and related workers	127	58	79	109	62	39	2	17	14	1699
Transport and Communication Supervisors	..	..	..	..	..	..	..	..	..	..
Transport conductors and Guards	..	..	..	..	..	..	..	..	..	..
Mail Distributors and related Workers	..	..	..	1	..	..	..	..	..	..
Telephone and Telegraph operators	..	1	..	..	..	..	..	..	..	4
Total	146	176	91	147	110	51	3	30	25	2054
Merchants and shopkeepers, wholesale and retail trade	..	..	..	..	..	..	..	..	..	..
Manufacture, Agents	..	..	..	..	..	1	..	1	7	4
Technical Salesmen and Commercial Travellers	..	..	..	..	..	..	..	..	..	1
Salesmen, Shop Assistants and related workers	4	8	31	2	10	..	84	7	7	7
Insurance, Real Estate, Securities and Business Service Salesmen and Auctioneers	..	..	..	..	..	..	..	..	..	..
Money Lenders and Pawn brokers	..	..	..	..	..	..	..	..	..	..
Sales workers, n.e.c.	..	..	..	..	..	..	..	..	..	..
Total	4	8	31	2	10	1	84	8	14	12

Appendix V—Contd.

1	2	3	4	5	6	7	8	9	10	11
Hotel and Restaurants keepers
House keepers, Matron and Stewards (Domestic and Institutional)
Cooks, Waitors, Bartenders and Related Workers (Domestic and Institutional)	3	..	115	1	..	..
Maids and other House keeping Service workers, n.e.c.
Building Caretakers	1	..	..	..	..	..	..
Launderers, Dry-cleaners and Pressers
Hair Dressers, Barbers Beauticians and related workers
Protective Service workers	..	1	..	..	..	..	..	..	..	..
Service workers n.e.c.
Total	..	1	..	1	3	..	115	1	..	31
Farm Plantation, Dairy and other Managers and Supervisors	126	..	..	19	..	..	..	..	..	..
Cultivators
Farmers other than Cultivators	45	..	..	..	..	..	..	..	..	..
Plantation workers
Other Farm Workers	225	..	1	138	3	..	..	..	..	11
Forestry workers	6	..	..	..	..	..	..	..	..	..
Hunters and related workers
Fishermen and related workers
Total	402	..	1	157	3	..	..	..	..	11
Miners, Quarrymen, Well Drillers and related workers
Metal Processors	66
Wood Preparation workers	..	11	..	..	..	..	..	..	..	..
Chemical processors and related workers	27	..	..	..	8
Spinners, weavers, knitters, Dyers and related workers	32504
Tanners, Fellmongers and Pelt Dressers
Food and Beverage Processors	..	783	618	6	325	243	428	341	..	..
Tobacco preparers and Tobacco product makers	202	..
Tailors, Dress makers, Sewers, up- holsters and related workers	161
Total	..	794	618	6	325	270	428	341	202	32739

Appendix V—Contd.

1	2	3	4	5	6	7	8	9	10	11
Shoemakers and Leather goods makers	..	..	..	..	2	..	..	..	..	71
Carpenters, Cabinet and related wood-workers		14	..	..	7	3	..	..	..	148
Stone cutter and carvers	..	..	..	..	..	..	..	..	..	..
Blacksmiths, Tool makers and Machine Tool operators	..	17	..	..	8	3	..	2	..	534
Machinery, Fitters, Machine Assemblers and Precision Instrument Makers (Except Electrical).	7	22	13	26	22	24	..	8	..	2470
Electrical, Fitters and related Electrical and Electrical workers.	..	7	6	3	4	14	..	6	..	357
Broadcasting Station and Sound Equipment Operators and Cinema Projectionists	..	..	..	..	..	..	..	..	..	.
Plumbers, Welders, Sheet Metal and Structural Metal Preparers & Erectors	..	8	..	1	1	3	..	2	..	104
Jewellery and precious metal workers and metal engravers (except printing)	..	..	..	..	..	..	..	..	..	36
Glass Formers, Potters and related workers	..	..	..	..	..	..	..	..	..	1
Total	7	68	19	30	44	47	..	18	..	3721
Rubber and plastic product makers	..	..	..	..	1	..	..	..	..	..
Paper and paper board product makers	..	..	..	..	..	..	..	..	..	..
Printing and related workers	..	..	..	..	..	..	..	..	..	1
Painters	..	..	..	..	..	1	..	..	..	17
Production and related workers, n.e.c.	..	..	..	..	..	..	..	..	..	6
Bricklayers and other construction workers	..	..	..	..	..	1	..	..	..	30
Stationery Engines and related equipment operators, oilers and greasers	13	18	1	12	22	36	..	60	..	1027
Material handling and related equipment operators	..	49	223	4	29	..	19	9	62	316
Transport equipment operators	16	7	25	28	4	1	10	9	10	42
Total	29	74	249	44	56	39	29	78	72	1439
Unskilled workers	279	323	25	118	473	128	13	76	17	2242
Grand Total	1446	1788	1173	530	1216	553	855	636	398	42721

Appendix V—Contd.

Description of Occupation	Cotton weaving in power loom	Cotton weaving in hand-loom	Cotton cordage, rope & belts	Jute spinning, weaving & other Jute products	Wool spinning and weaving in mills	Car-pets and Darries	Hosi-ery and knitted fabrics	Textile gar-ments	Textile Miscel-laneous other than Hosiery & Car-pets
1	12	13	14	15	16	17	18	19	20
Physical Scientists
Physical Science Technicians
Architects, Engineers, Technologists and Surveyors	3	4	9	..	..	..	5
Engineering Technicians	3	..	..	..	15
Aircraft and Ships Officers
Life Scientists
Life Science Technicians	13	..	..	..	..
Physicians and Surgeons (including Dental and Veterinary Surgeons)	1	7	..	..	..	7
Nursing and other Medical and Health Technicians	3	..	..	1	5
Scientific, Medical and Technical Persons, other
	3	5	35	..	..	1	32
Mathematicians, Statisticians and related workers	1	..	..	..	..
Economists and related workers
Accountants, Auditors and related workers	1	..	6	1	5	..	3	1	41
Social Scientists and related workers	2	6	..	..	..	2
Jutists
Teachers	21	..	..	..	..
Poets, Authors, Journalists and related workers
Sculptors, Painters, Photographers and related creative Artists
Composers and performing Artists
Professional workers n.e.c.
	1	..	6	3	33	..	3	1	6

Appendix V—Contd.

1	12	13	14	15	16	17	18	19	20
Elective and Legislative Officials	..	..	..	..	..	..	..	..	..
Administrative and Executive Official Government and Local Bodies	..	..	..	..	..	..	..	..	..
Working Proprietors, Doctors, and Managers wholesale and retail trade	..	..	..	..	..	..	..	..	..
Directors and Managers Financial Institu- tions	..	..	..	..	..	..	..	..	..
Working Proprietors, Directors and Mana- gers Mining, Construction, Manufac- turing and related concerns	78	160	80	15	15	320	123	590	121
Working Proprietors, Directors, Managers and related executives, Transport, Storage and communication	..	..	..	..	..	..	..	..	..
Working Proprietors, Directors & Managers other services	..	..	..	..	..	..	..	..	..
Administrative, Executive and Managerial workers, n.e.c.	..	..	..	..	..	..	..	..	..
	78	160	80	15	15	320	123	590	121
Clerical and other Supervisors	..	..	..	14	27	..	..	8	45
Village officials	..	..	..	..	..	..	..	..	..
Stenographers, Typists and card and tape punching operators	..	..	2	3	33	..	1	..	4
Book keepers, Cashiers and related workers	2	1	5	..	5	..	3	7	8
Computing Machine Operators	..	..	..	..	1	..	..	..	..
Clerical and related workers	10	..	14	154	243	1	4	7	229
Transport and communication supervisors	..	..	..	..	..	..	..	..	..
Transport conductors and Guards	..	..	..	..	..	..	..	..	..
Mail Distributors and related workers	..	..	..	..	..	..	..	..	4
Telephone and Telegraph Operators	..	..	..	..	1	..	..	..	..
	12	1	21	171	310	1	8	22	291
Merchants and shopkeepers, wholesale and retail trade	..	..	..	..	..	..	..	..	..
Manufacturers Agents	..	..	..	..	3	..	1	..	..
Technical Salesmen and Commercial Travellers	..	..	..	..	..	..	..	..	..
Salesmen, Shop Assistants and related workers	1	1	..	3	..	..	4	13	15
Insurance, Real Estate, Securities and Business Service Salesmen and Auctioneers	..	..	..	..	..	..	..	..	..
Money Lenders and Pawn brokers	..	..	..	..	..	..	..	..	..
Sales workers, n.e.c.	..	..	..	..	..	..	..	..	..
	1	1	..	3	3	..	5	13	15

Appendix V—Contd.

1	12	13	14	15	16	17	18	19	20
Hotel and Restaurants keepers
House Keepers, Matron and Stewards (Domestic and Institutional)
Cooks, Waiters, Bartenders and Related workers (Domestic and Institutional)	18	..	..	1	..
Maids and other House keeping service workers n.e.c.	1	..	..	..	..
Building caretakers
Launderers, Dry-cleaners and Pressers	63	40	2
Hair Dressers, Barbers, Beauticians and related workers
Protective Service Workers	1	1	..	..	..	16
Service Workers, n.e.c.
	1	20	..	63	41	18
Farm Plantation, Dairy and other Managers and Supervisors
Cultivators
Farmers other than Cultivators
Plantation workers
Other Farm Workers	4	..	..	1	2
Forestry workers
Hunters and related workers
Fishermen and related workers
	4	..	..	1	2
Miners, Quarrymen, Well Drillers and related workers
Metal Processors	2	..	3	..	..	..	..
Wood Preparation workers
Chemical processors and related workers
Spinners, weavers, knitters, Dyers and related workers	503	1092	461	3775	3139	2205	202	1	108
Tanners, Fellmongers and Pelt Dressers
Food and Beverage Processors
Tobacco preparers and Tobacco product makers
Tailors, Dress makers, Sewers, upholsterers and related workers	6	218	..	223	2712	2319
	503	1092	463	3781	3360	2205	425	2713	2927

Appendix V—Contd.

1	12	13	14	15	16	17	18	19	20
Shoemakers and Leather goods makers	..	..	..	..	..	..	..	..	42
Carpenters, Cabinet and related wood workers	..	..	1	..	25	..	..	..	14
Stone cutter and carvers	..	..	..	..	..	..	..	..	..
Blacksmiths, Tool makers and Machine Tool Operators	..	..	5	11	44	..	..	3	40
Machinery, Fitters, Machine Assemblers and Precision Instrument Makers (Except Electrical).	7	..	15	133	294	..	1	1	35
Electrical, Fitters, and related Electrical and Electronic workers	2	..	1	4	16	..	..	..	86
Broadcasting Station and Sound Equipment Operators and Cinema Projectionists	..	..	..	..	..	..	..	..	..
Plumbers, Welders, Sheet Metal and Structural Metal Preparers and Erectors	..	..	..	2	6	..	..	2	14
Jewellery and precious metal workers and metal engravers (except printing)	..	..	..	..	..	..	..	..	..
Glass Formers, Potters and related workers	..	..	..	..	..	..	..	..	..
	9	..	22	150	385	..	1	6	231
Rubber and plastic product makers	..	..	..	..	..	..	..	..	..
Paper and paper board product makers	..	..	..	..	..	..	..	..	..
Printing and related workers	..	..	..	..	..	..	..	..	1
Painters	..	..	..	2	2	..	..	..	4
Production and related workers, n.e.c.	..	..	..	..	..	..	..	..	8
Bricklayers and other construction workers	..	..	..	8	14	..	..	..	7
Stationary Engines and related equipment operators oilers & greasers	..	..	..	82	41	..	..	..	50
Matirial handling and related equipment operators oilers and greasers	1	..	42	7	12	..	20	10	118
Transport equipment operators	..	..	..	6	12	..	1	..	25
	1	..	42	105	81	..	21	10	213
Unskilled workers	16	..	63	235	197	..	20	12	560
Grand Total	621	1254	700	4469	4443	2526	669	3410	4416

Appendix V—Contd.

Description of Occupation	Sawing and Planing of wood	Wooden furni- ture Boxes and other material	Paper, paper board and paper products
1	21	22	23
Physical Scientists
Physical Science Technicians
Architects, Engineers, Technologists and Surveyors
Engineering Technicians
Aircraft and ships officers
Life Scientists
Life Science Technicians
Physicians and Surgeons (including Dental and Veterinary Surgeons)
Nursing and other Medical and Health Technicians
Scientific, Medical and Technical Persons, other

Mathematicians, Statisticians and related workers
Economists and related workers
Accountants, Auditors and related workers	2	1	2
Social Scientists and related workers
Jurists
Teachers
Poets, Authors, Journalists and related workers
Sculptors, Painters, Photographers and related creative Artists	..	1	..
Composers and performing Artists
Professional workers n.e.c.
	2	2	2

Appendix V—Contd.

1	21	22	23
Elected and Legislative officials	..	..	..
Administrative and Executive officials Government and Local Bodies	..	..	..
Working proprietors, Directors and Managers wholesale and retail trade	..	..	..
Director and Managers, Financial Institutions	..	..	..
Working Proprietors, Directors and Managers Mining Construction Manufacturing and related concerns.	259	147	56
Working Proprietors, Directors, Managers and related executives Transport, Storage and communication	..	..	..
Working Proprietors, Directors & Managers other services	..	..	..
Administrative, Executive and Managerial workers, n.e.c.	..	..	..
	259	147	56
Clerical and other Supervisors	..	5	..
Village officials	..	..	..
Stenographers, Typists and card and tape punching Operators	..	..	..
Book-keepers, Cashiers and related workers	51	7	2
Computing Machine Operators	..	..	..
Clerical and related workers	4	4	2
Transport and communication supervisors	..	..	..
Transport conductors and Guards	..	..	..
Mail Distributors and related workers	..	..	..
Telephone and Telegraph Operators	..	..	..
	55	16	4
Merchants and shopkeepers, wholesale and retail trade	..	..	..
Manufacturers Agents	..	..	1
Technical Salesmen and Commercial Travellers	..	1	..
Salesmen, Shop Assistants and related workers	3	..	2
Insurance, Real Estate, Securities and Business Service Salesmen and Auctioneers	..	..	..
Money Lenders and Pawn brokers	..	4	..
Sales workers, n.e.c.	..	..	..
	3	5	3

Appendix V—Contd.

1	21	22	23
Hotel and Restaurant keepers
House Keepers, Matron and Stewards (Domestic and Institutional)
Cooks, Waitors, Bartenders and Related workers (Domestic and Institutional)	1	..	..
Maids and other House keeping service workers, n.e.c.
Building caretakers
Launderers, Dry-cleaners and Pressers
Hair Dressers, Barbers, Beauticians and related workers
Protective Service workers
Service Workers, n.e.c.
	1	..	..
Farm Plantation, Dairy and other Managers and Supervisors
Cultivators
Farmers other than Cultivators
Plantation workers
Other Farm workers
Forestry workers
Hunters and related workers
Fishermen and related workers

Miners, Quarrymen, Well Drillers and related workers
Metal Processors
Wood Preparation workers	520	11	89
Chemical processors and related workers
Spinners, weavers, knitters, Dyers and related workers
Tanners, Fellmongers and pelt dressers
Food and Beverage Processors	5	..	..
Tobacco preparers and Tobacco product makers
Tailors, Dress makers, Sewers, upholsteres and related worker
	525	11	89

Appendix V—Contd.

	1	21	22	23
Shoemakers and leather goods makers	
Carpenters, Cabinet and related wood workers		125	458	..
Stone cutter and carbers	
Blacksmiths, Tool makers and Machine Tool Operators		4	4	..
Machinery, Fitters, Machine Assemblers and Precision Instrument Makers (Except Electrical)		1
Electrical, Fitters and related Electrical and Electronic workers	
Broadcasting Station and Sound Equipment Operators and Cinema Projectionists	
Plumbers, Welders, Sheet Metal and Structural Metal Preparers and Erectors		1	3	..
Jewellery and precious metal workers and metal engravers (except printing)	
Glass Farmers, Potters and related workers	
		<u>130</u>	<u>465</u>	<u>1</u>
Rubber and plastic product makers		..	3	..
Paper and paper board product makers		159
Printing and related workers		11
Painters		..	2	2
Production and related workers, n.e.c.		..	11	..
Bricklayers and other construction workers	
Stationary Engines and related equipment operators, oilers and greaser		1
Material handling and related equipment operators		1	..	11
Transport equipment operators		1	1	2
		<u>2</u>	<u>17</u>	<u>186</u>
Unskilled workers		167	19	26
GRAND TOTAL		<u>1144</u>	<u>682</u>	<u>367</u>

Appendix V—Contd.

	Print- ing and Publi- shing	Curr- ying, and tann- ing and fish- ing of hides	Shoes and lea- ther foot wear	Other lea- ther pro- ducts	Rubb- er & rub- ber pro- ducts	Basic Indu- stri- al chemi- cals	Pain- ts, Dyes and Varn- ishes	Ferti- lizer	Medi- cines, Phar- mace- utic- als and resi- nos- metics	Tur- pene syn- thetic and resi- ns	Soap & oth- er chemi- cal prod- ucts	Bricks and tiles
1	24	25	26	27	28	29	30	31	32	33	34	35
Physical Scientists	2	23	16	29	15	2	4	..
Physical Science Technicians	46	..	..	..	1	3	5	..	..	..
Architects, Engineers, Technologists and Surveyors	28	..	1	4	..	76	1	49	..	..
Engineering Technicians	10	..	11	..	..
Aircraft and ships officers
Life Scientists
Life Science Technicians
Physicians and Surgeons (including Dental & Veterinary Surgeons)	8	..	..	5	..	5	66	6	..	..
Nursing and other Medical and Health Technicians	1	..	..	..	..
Scientific, Medical and Technical Persons other
	82	..	3	32	17	124	87	69	4	..
Mathematicians, Statisticians and related workers	1	..	1	..	..
Economists and related workers
Accountants, Auditors and related workers	10	23	4	7	5	9	6	6	12	22	5	2
Social Scientists and related workers	..	1	..	..	..	1	..	6	1	8	..	..
Jurists
Teachers	2	..	7	..	..
Poets, Authors, Journalists & related workers	44	..	..	..	..	..	..	..	..	..	..	..
Sculptors, Painters, Photographers and related creative Artists	1	..	..	..	..	..	..	..	..	..	..	..
Composers and Performing Artists
Professional workers, n.e.c.	22	..	..	..	..	5	..	6	..	..
	55	24	26	7	5	10	6	20	13	44	5	2

Appendix V—Contd.

1	24	25	26	27	28	29	30	31	32	33	34	35
Elected and Legislative Officials	..	..	..	..	..	..	..	..	..	..	..	..
Administrative and Executive officials Government and Local Bodies	..	..	..	..	..	..	..	..	..	..	..	..
Working Proprietors, Directors and Managers, wholesale & retail trade	..	..	..	..	..	..	..	..	..	..	..	..
Directors and Managers, Financial Institutions	..	..	..	..	..	..	..	..	..	..	..	..
Working Proprietors, Directors and Managers Mining Construction, Manufacturing and related concerns	327	137	391	125	79	69	34	13	72	205	109	199
Working Proprietors, Directors Managers and related executives, Transport, Storage and communication	..	..	..	..	..	..	..	..	..	..	..	..
Working Proprietors, Directors and Managers, other services	..	..	..	..	..	..	..	..	..	..	..	..
Administrative, Executive and Managerial workers, n.e.c.	..	..	..	..	..	..	..	..	..	..	..	..
	327	137	391	125	79	69	34	13	72	205	109	199
Clerical and other Supervisors	8	..	..	..	1	5	3	94	2	143	1	..
Village officials	..	..	..	..	..	..	..	..	..	..	..	..
Stenographers, Typists and card and tape punching operators	13	31	2	1	1	3	8	24	5	41	..	..
Book keepers, Cashiers and related workers	2	8	17	7	3	2	7	4	10	13	11	178
Computing Machine Operators	..	..	..	..	..	..	..	..	..	3	..	..
Clerical and related workers	116	139	326	12	17	20	34	7	74	119	9	3
Transport and communication supervisor	..	..	..	..	..	..	..	..	..	1	..	..
Transport conductors and Guards	..	..	..	..	..	..	..	..	..	..	..	..
Mail Distributors and related workers	..	..	..	..	..	..	..	..	3	..	..	..
Telephone and Telegraph operators	2	..	..	..	1	..	..	6	..	2	..	..
	141	160	345	20	23	30	52	135	94	322	21	181
Merchants and shopkeepers, wholesale and retail trade	..	..	..	..	..	..	..	..	..	..	..	..
Manufacturers, Agents	2	3	4	2	..	..	..	..	1	6	1	..
Technical Salesmen and Commercial Travellers	8	..	28	2	..	..	..	..	30	..	..	..
Salesmen, Shop Assistants and related workers	7	3	27	8	..	..	11	..	38	61	9	..
Insurance, Real Estate, Securities and Business Service Salesmen and Auctioneers	1	..	..	..	..	..	..	..	1	..	..	..
Money Lenders and Pawn Brokers	..	..	..	..	..	..	..	..	..	..	..	..
Sales workers, n.e.c.	..	..	..	..	..	..	..	..	..	..	..	..
	18	6	59	12	..	..	11	..	70	67	10	..

Appendix V—Contd.

1	24	25	26	27	28	29	30	31	32	33	34	35
Hotel & Restaurant Keepers
House Keepers, Matron and Stewards (Domestic and Institutional)
Cooks, Waiters, Bartenders and Related Workers (Domestic & Institutional)	8	..	..
Maids and other House Keeping Service Workers, n.e.c.
Building caretakers	1	..	..
Launderers, Dry-cleaners & Pressers
Hair Dressers, Barbers, Beauticians and related workers
Protective Service Workers	1	..	64	..	4	..	..
Service workers, n.e.c.
	1	..	64	..	13	..	..
Farm Plantation, Dairy and other Managers & Supervisors
Cultivators
Farmers other than cultivators
Plantation workers
Other Farm Workers	1	1	..	..	..	..	..	17	2	2	1	..
Forestry workers
Hunters and related workers
Fishermen and related workers
	1	1	..	..	..	..	..	17	2	2	1	..
Miners, Quarrymen, Well Drillers and relat- ed workers	742	..	..
Metal Processors	21	..	..	..	4	..	..
Wood Preparation workers	22	..	..	..	..	..	..	..	..	..	..	..
Chemical processors and related workers	48	694	324	418	264	10	295	..
Spinners, weavers, knitters, Dyers and relat- ed workers	7	..	..	..	..	..	591	..	..
Tanners, Fell-mongers and Pelt Dressers	..	796	5	..	..	..	..	..	..	..	..	..
Food and Beverage Processors	1	..	2	..
Tobacco preparers and Tobacco product makers
Tailors, Dress makers, Sewers, upholsters & related workers	4	..	..	..	..	..	7	..	..
	22	796	5	11	48	715	324	418	265	1354	297	..

Appendix V—Contd.

1	24	25	26	27	28	29	30	31	32	33	34	35
Shoemakers and Leather goods makers	..	69	2692	387	23	..	..	..	..	..	..	..
Carpenters, Cabinet and related wood workers	3	..	..	..	..	4	1	1	..	7	..	..
Stone cutter and carvers	..	..	..	..	..	..	..	..	..	..	..	..
Blacksmiths, Tool makers and machine Tool Operators	1	1	..	2	3	9	3	22	..	90	4	..
Machinery, Fitters, Machine Assemblers and Precision instrument makers (except Electrical)	..	17	2	..	11	14	7	169	1	255	1	..
Electrical, Fitters and related Electrical and Electronic workers	4	6	1	..	1	8	1	31	2	53	5	..
Broadcasting Station and Sound Equipment Operators and Cinema Projectionists	..	..	..	..	..	..	..	..	..	..	..	..
Plumbers, Welders, Sheet Metal and Structural Metal Preparers & Erectors	..	..	..	..	..	5	1	6	..	35	1	..
Jewellery and precious metal workers & metal engravers (except printing)	12	..	..	..	..	..	..	..	..	..	..	..
Glass Formers, Potters and related workers	..	..	..	..	..	..	..	..	..	2	..	148
	20	93	2695	389	38	40	13	229	3	442	11	148
Rubber and plastic product makers	1	..	..	2	351	4	..	..	7	716	..	..
Paper and paper board product makers	..	..	..	..	..	..	..	..	..	..	..	..
Printing and related workers	1245	..	..	..	..	..	..	..	..	5	..	..
Painters	..	..	..	..	..	..	6	..	..	1	..	..
Production and related workers, n.e.c.	..	..	..	..	..	3	..	..	..	..	40	..
Bricklayers and other construction workers	..	..	..	..	..	1	..	4	..	4	..	..
Stationery Engines and related Equipment Operators, oilers and greasers	2	2	..	..	16	13	3	9	11	81	12	31
Material handling and related equipment operators	10	3	59	1	3	7	12	54	182	49	33	..
Transport equipment operators	5	1	8	..	1	..	3	73	4	31	11	52
	1263	6	67	3	371	28	24	140	204	887	96	83
Unskilled workers	219	1655	346	13	105	74	32	73	87	325	63	261
GRAND TOTAL	2066	2878	4016	580	672	999	513	1233	897	3730	617	874

Appendix V—Contd.

Description of Occupation	Smelting, refining & re-rolling of iron & steel	Iron & Steel furniture	Aluminium products	Metal products such as tin-can etc.	Enamelling, galvanising & welding	Sundry hardwares	Agriculture equipments oil engines etc.	Electrical equipment and goods	Motor vehicles & engine parts manufacturing & repairing	Bicycles, tricycles & accessories	Aeroplanes and aero-engines	Repairing of bicycles & tricycles	Other manufacturing industries	Manufacturing industries (total Divn. 2+3)
	36	37	38	39	40	41	42	43	44	45	46	47	48	49
Physical Scientists	14	..	..	1	1	..	..	..	..	..	..	..	1	116
Physical Science Technicians	1	..	..	..	..	..	..	1	..	..	..	..	..	67
Architects, Engineers, Technologists and Surveyors	16	1	..	1	13	29	23	30	36	..	275	..	115	871
Engineering Technicians	9	..	..	1	1	15	12	7	40	..	376	..	799	1336
Aircraft and Ships Officers	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Life Scientists	..	..	..	..	..	..	..	..	..	..	..	..	..	3
Life Science Technicians	..	..	..	..	..	..	..	..	..	..	..	..	..	13
Physicians and Surgeons (including Dental & Veterinary Surgeons)	4	..	..	..	..	..	..	..	2	..	3	..	24	157
Nursing & other Medical and Health Technicians	..	..	..	..	..	..	..	..	3	..	7	..	46	70
Scientific, Medical and Technical Persons, other	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	44	1	..	3	15	44	35	38	81	..	661	..	985	2633
Mathematicians, Statisticians & related workers	..	..	..	..	..	..	..	..	..	..	2	..	..	17
Economists & related workers	..	..	..	..	..	..	..	..	..	..	..	..	..	5
Accountants, Auditors & related workers	15	8	6	4	1	35	8	13	11	6	20	..	26	347
Social Scientists and related workers	2	..	..	..	1	..	..	1	1	..	10	..	6	90
Jurists	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Teachers	..	..	..	..	..	..	..	..	3	..	3	..	59	108
Poets, Authors, Journalists and related workers	..	..	..	..	..	..	..	..	1	..	2	..	..	47
Sculptors, Painters, Photographers & related creative Artists	..	..	..	..	..	..	..	..	..	..	4	..	3	10
Composers & performing Artists	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Professional workers, n.e.c.	2	..	..	..	2	..	..	..	..	..	..	..	14	64
	19	8	6	4	4	35	8	14	16	6	41	..	108	688

Appendix V—Contd.

1	36	37	38	39	40	41	42	43	44	45	46	47	48	49
Elected & Legislative officials	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Administrative & Executive officials Government and local Bodies	..	..	..	..	..	..	..	..	..	..	..	..	8	8
Working Proprietors, Directors & Managers, wholesale & retail trade	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Directors & Managers, Financial Institutions	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Working Proprietors, Directors & Managers, Mining Construction, Manufacturing & related concerns	200	61	34	122	70	481	196	153	361	57	54	55	371	7087
Working Proprietors, Directors, Managers & related executives, Transport, Storage & Communication	..	..	..	..	..	..	..	..	..	..	3	..	..	4
Working Proprietors, Directors & Managers, other services	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Administrative, Executive & Managerial workers, n.e.c.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	200	61	34	122	70	481	196	153	361	57	57	55	379	7099
Clerical & other Supervisors	19	..	4	2	..	11	24	16	61	1	90	..	406	1279
Village officials	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Stenographers, Typists and Card & Tape punching operators	14	2	1	1	..	19	9	26	7	..	126	..	26	476
Book Keepers, Cashiers & related workers	22	9	4	10	5	33	6	7	5	1	..	2	29	703
Computing Machine Operators	1	..	..	..	..	..	..	..	..	..	..	..	1	12
Clerical & related workers	123	30	16	25	18	115	23	95	320	6	397	..	628	5423
Transport & Communication Supervisors	..	..	..	..	..	..	..	..	1	..	1	..	..	3
Transport Conductors & Guards	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mail Distributors and related workers	..	..	..	..	..	..	..	..	70	..	78	..	49	205
Telephone & Telegraph operators	..	1	..	..	..	1	..	1	1	..	3	..	8	32
	179	42	25	38	23	179	62	145	465	8	695	2	1147	8133
Merchants and shopkeepers, wholesale and retail trade	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Manufacturers' Agents	..	..	..	..	..	..	..	4	..	1	..	..	1	43
Technical Salesmen and Commercial Travellers	..	..	..	..	..	..	..	7	..	..	..	..	2	79
Salesmen, Shop Assistants and related workers	6	1	1	..	..	11	7	9	23	1	..	3	35	459
Insurance, Real Estate, Securities and Business Service Salesmen and Auctioneers	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Money Lenders and Pawn Brokers	..	..	..	..	..	..	..	..	..	..	..	..	..	4
Sales workers, n.e.c.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	6	1	1	..	..	11	7	20	23	2	..	3	38	587

Appendix V—Contd.

1	36	37	38	39	40	41	42	43	44	45	46	47	48	49
Hotel & Restaurant keepers	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Housekeepers, Matron & Stewards (Domestic and Institutional)	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Cooks, Waiters, Bartenders and related workers (Domestic & Institutional)	..	..	..	..	..	2	2	..	2	..	30	..	5	188
Maids and other House Keeping Service workers, n.e.c.	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Building caretakers	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Launderers, Dry-cleaners & Pressers	..	..	..	..	..	..	1	1	1	..	..	..	2	110
Hair Dressers, Barbers, Beauticians and related workers	..	..	..	..	..	..	..	..	1	..	..	..	1	1
Protective Service workers	1	..	1	..	1	2	1	..	..	..	18	..	60	203
Service workers, n.e.c.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	1	..	1	..	1	4	4	1	4	..	48	..	69	507
Farm Plantation, Dairy and other Managers & Supervisors	..	..	..	..	..	..	..	..	..	..	..	..	..	19
Cultivators	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Farmers other than cultivators	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plantation workers	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Farm Workers	2	..	..	..	..	6	1	..	2	..	5	..	16	216
Forestry Workers	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hunters and related workers	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fishermen and related workers	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	2	..	..	..	..	6	1	..	2	..	5	..	16	235
Miners, Quarrymen, Well Drillers & related workers	4	..	..	..	..	..	..	..	..	..	..	..	6	752
Metal Processors	1711	12	177	20	140	353	18	58	28	19	10	..	638	3280
Wood Preparation Workers	..	..	..	..	..	..	..	..	..	..	..	..	7	660
Chemical processors and related workers	..	..	..	..	2	..	..	6	..	..	..	..	60	2156
Spinners, Weavers, Knitters, Dyers and related workers	..	..	..	..	..	..	..	..	..	..	..	..	459	45047
Tanners, Fellmongers and Pelt Dressers	..	..	..	..	..	1	..	..	..	..	..	..	..	302
Food and Beverage Processors	..	..	..	..	..	..	..	..	..	..	..	..	10	2762
Tobacco preparers and Tobacco Product makers	..	..	..	..	..	..	..	..	..	..	..	..	..	202
Tailors, Dressmakers, Sewers, Upholseres & related workers	..	..	..	..	..	..	..	..	29	..	..	..	3	6182
	1715	12	177	20	142	354	18	64	57	19	10	..	1183	61843

Appendix V-- Contd.

1	36	37	38	39	40	41	42	43	44	45	46	47	48	49
Shoemakers and Leather goods makers	1	..	..	..	..	2	..	..	1	4	..	..	9	3303
Carpenters, Cabinet and related wood workers	10	2	..	4	4	3	10	6	200	4	37	..	126	1217
Stone cutter and carvers	..	..	..	..	..	..	..	..	..	..	..	..	4	4
Blacksmiths, Toolmakers and Machine Tool Operators	467	113	252	135	104	1228	459	58	475	94	94	..	5630	9919
Machinery, Fitters, Machine Assemblers and Precision Instrument Makers (Electrical)	142	95	7	26	54	280	188	53	1964	57	1221	162	1812	9696
Electrical, Fitters and related Electrical and Electronic workers	67	1	..	3	4	16	7	456	217	..	203	1	262	1855
Broadcasting Station and Sound Equipment Operators and Cinema Projectionists	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plumbers, Welders, Sheet Metal and Structural Metal Preparers and Erectors	94	171	28	419	83	251	43	3	230	33	63	1	277	1891
Jewellery and precious metal workers & metal engravers (except printing)	..	..	..	..	..	..	..	..	..	..	2	..	101	151
Glass Formers, Potters and related workers	1	..	..	..	..	..	..	238	2	..	..	..	119	511
	782	382	287	587	249	1780	796	811	3089	192	1620	164	8340	28547
Rubber and plastic product makers	..	..	..	..	..	..	..	2	74	..	14	..	132	1307
Paper and paper board product makers	..	..	..	..	..	..	..	..	..	..	..	..	..	159
Printing and related workers	..	..	..	..	..	4	..	..	..	..	16	..	..	1283
Painters	2	30	..	14	6	4	7	1	86	17	43	..	76	323
Production and related workers, n.e.c.	..	8	..	..	..	..	..	140	..	..	..	..	527	743
Bricklayers and other construction workers	24	..	..	..	..	2	1	3	3	..	3	..	133	238
Stationery Engines and related Equipment Operators, oilers and greasers	52	..	..	3	38	1	1	10	151	..	4	..	205	1995
Material handling and related equipment operators	53	1	1	..	..	16	2	38	11	10	7	..	465	1950
Transport equipment operators	14	1	1	..	..	9	5	6	111	5	41	..	135	701
	145	40	2	17	44	36	16	200	436	32	128	..	1673	8699
Unskilled workers	688	184	117	145	36	846	174	218	926	81	259	2	1903	13562
GRAND TOTAL	3781	731	650	936	584	3776	1317	1664	5460	397	3524	226	15841	132533

Appendix V—Contd.

Description of Occupation	Construction	Electricity, Gas, water & sanitary services	Wholesale Trade	Retail Trade	Providents and insurances	Banking	Total Industries 6	Transporting by railways	Transporting by bus services & other motor vehicles 7	Other industries in this Division	Total industries 7
	50	51	52	53	54	55	56	57	58	59	60
Physical Scientists	..	38	..	..	..	..	..	3	..	..	3
Physical Science Technicians	16	5	..	..	..	..	..	..	..	..	..
Architects, Engineers, Technologists and Surveyors	340	117	10	2	7	1	20	9	..	19	28
Engineering Technicians	394	296	..	..	..	5	5	129	..	126	255
Aircraft and Ships Officers	..	..	..	..	..	..	..	..	..	..	..
Life Scientists	..	2	..	..	..	..	..	..	..	..	..
Life Science Technicians	..	..	..	..	..	..	..	1	..	..	1
Physicians and Surgeons (including Dental and Veterinary Surgeons)	..	6	2	5	1	3	11	17	..	..	17
Nursing and other Medical and Health Technicians	..	3	..	..	..	..	..	30	..	..	30
Scientific, Medical and Technical persons, other	..	..	..	..	..	..	..	..	..	..	..
	750	527	12	7	8	9	36	189	..	145	334
Mathematicians, Statisticians and related workers	..	..	..	..	1	..	1	..	..	..	..
Economists and related workers	..	..	..	..	..	16	16	..	..	..	..
Accountants, Auditors and related workers	24	23	208	125	11	154	498	..	56	29	85
Social Scientists and related workers	..	4	..	..	..	7	7	..	..	1	1
Jurists	1	..	4	..	..	5	9	..	..	..	..
Teachers	..	..	..	..	..	..	..	..	..	..	..
Poets, Authors, Journalists and related workers	..	..	..	..	..	..	..	..	..	..	..
Sculptors, Painters, Photographers and related creative Artists	..	..	..	..	..	..	..	..	..	..	..
Composers and performing Artists	..	..	..	..	..	..	..	..	..	10	10
Professional workers, n.e.c.	..	2	..	..	..	..	..	..	..	..	..
	25	29	212	125	12	182	531	..	56	40	96

Appendix V—Contd.

1	50	51	52	53	54	55	56	57	58	59	60
Elected and Legislative officials	..	..	..	..	..	..	..	..	..	..	..
Administrative and Executive Officials Government and Local Bodies	58	7	..	..	4	..	4	..	..	6	6
Working Proprietors, Directors and Managers, wholesale and retail trade	..	..	3249	2001	3	10	5263	..	..	..	..
Directors and Managers, Financial Institutions	..	..	..	..	257	797	1054	..	..	..	..
Working Proprietors, Directors and Managers, Mining Construction, Manufacturing and related concerns	17	15	..	..	..	..	..	..	..	..	..
Working Proprietors, Directors, Managers and related executives, Transport, Storage and Communication	..	..	..	..	..	..	..	..	443	67	510
Working Proprietors, Directors and Managers, other services	..	..	..	..	..	..	..	..	..	..	..
Administrative, Executive and Managerial workers, n.e.c.	..	..	..	..	..	..	..	..	..	..	..
	75	22	3249	2001	264	807	6321	..	443	73	516
Clerical and other Supervisors	238	106	72	8	550	476	1106	54	117	42	213
Village officials	62	64	..	..	..	..	..	..	..	..	..
Stenographers, Typists and card and tape punching operators	26	85	143	39	115	247	544	6	17	10	33
Book Keepers, Cashiers and related workers	10	38	1295	230	44	2843	4412	..	66	2	68
Computing Machine Operators	11	39	..	..	3	..	3	..	..	..	..
Clerical and related workers	458	564	1045	240	742	309	2336	1068	895	1047	3010
Transport and Communication Supervisors	..	..	..	..	..	..	..	267	24	653	944
Transport Conductors and Guards	..	..	..	..	..	..	..	41	554	..	595
Mail Distributors and related workers	1	22	..	..	..	20	20	23	..	1617	1640
Telephone and Telegraph operators	4	12	6	..	4	2	12	9	2	484	495
	810	930	2561	517	1458	3897	8433	1468	1675	3855	6998
Merchants and shopkeepers, wholesale and retail trade	..	..	..	..	..	..	..	..	..	..	..
Manufacturers' Agents	..	..	42	27	70	3	142	..	..	..	..
Technical Salesmen and Commercial Travellers	..	3	63	8	..	..	71	..	..	..	..
Salesmen, Shop Assistants and related workers	..	4	2311	2798	..	..	5109	..	..	..	..
Insurance, Real Estate, Securities and Business Service Salesmen and Auctioneers	..	..	..	1	..	10	11	..	..	..	..
Money Lenders and Pawn Brokers	..	..	..	..	..	3	3	..	..	..	..
Sales workers, n.e.c.	..	..	..	..	..	..	..	..	..	..	..
	..	7	2416	2834	70	16	5336	..	..	..	..

Appendix V—Contd.

1	50	51	52	53	54	55	56	57	58	59	60
Hotel and Restaurants keepers	..	..	..	..	..	..	..	..	..	..	..
House Keepers, Matron and Stewards (Domestic and Institutional)	..	..	..	..	..	..	..	..	..	..	..
Cooks, Waiters, Bartenders and Related workers (Domestic and Institutional)	2	..	2	14	..	7	23	157	..	2	159
Maids and other House Keeping Service workers, n.e.c.	..	..	..	..	..	..	..	32	..	5	37
Building caretakers	1	..	1	..	..	5	6	..	..	..	..
Launderers, Dry-cleaners and Pressers	..	..	..	..	..	..	..	..	..	..	..
Hair Dressers, Barbers, Beauticians and related workers	..	..	..	..	..	..	..	..	..	..	..
Protective Service workers	..	22	1	..	..	3	4	..	..	6	6
Service workers, n.e.c.	..	..	..	..	..	..	..	..	..	..	..
	3	22	4	14	..	15	33	189	..	13	202
Farm Plantation, Dairy and other Managers and Supervisors	..	..	..	..	..	..	..	..	..	..	..
Cultivators	..	..	..	..	..	..	..	..	..	..	..
Farmers other than cultivators	..	..	..	..	..	..	..	..	..	..	..
Plantation workers	..	..	..	..	..	..	..	..	..	..	..
Other Farm Workers	400	22	3	3	2	22	30	2	..	4	6
Forestry Workers	..	..	..	7	..	..	7	..	..	..	..
Hunters and related workers	..	..	..	..	..	..	..	..	..	..	..
Fishermen and related workers	..	..	..	..	..	..	..	..	..	..	..
	400	22	3	10	2	22	37	2	..	4	6
Miners, Quarrymen, Well Drillers and related workers	..	..	..	..	..	..	..	..	..	..	..
Metal Processors	9	13	..	..	..	..	..	..	..	..	..
Wood Preparation Workers	..	..	5	..	..	..	5	..	..	..	..
Chemical processors and related workers	..	50	5	5	..	..	10	..	..	..	..
Spinners, Weavers, Knitters, Dyers and related workers	..	..	15	..	..	..	15	..	..	..	..
Tanners, Fellmongers and Pelt Dressers	..	..	151	..	..	..	151	..	..	..	..
Food and Beverage Processors	..	1	10	7	..	..	17	..	..	..	..
Tobacco preparers and Tobacco makers	..	..	..	1	..	..	1	..	..	..	..
Tailors, Dress makers, Sewers, Upholsteres and related workers	2	..	2	13	..	..	15	..	3	..	3
	11	64	188	26	..	..	214	..	3	..	3

Appendix V—Contd.

1	50	51	52	53	54	55	56	57	58	59	60
Shoemakers and Leather goods makers	..	..	..	4	..	..	4	..	..	..	..
Carpenters, Cabinet and related wood workers	93	23	5	16	1	..	22	32	9	1	42
Stone cutter and carvers	..	..	..	..	..	..	..	..	..	..	..
Blacksmiths, Tool makers and Machine Tool Operators	157	82	2	11	..	..	13	210	7	..	217
Machinery, Fitters, Machine Assemblers and Precision Instrument makers (except Electrical)	124	241	58	278	..	2	338	769	39	2	810
Electrical Fitters and related Electrical and Electronic workers	90	915	28	81	2	5	116	309	3	509	821
Broadcasting Station and Sound Equipment Operators and Cinema Projectionists	..	..	..	..	..	..	..	..	..	10	10
Plumbers, Welders, Sheet Metal and Structural Metal Preparers and Erectors	32	42	..	..	2	..	2	538	8	..	546
Jewellery and precious metal workers and metal engravers (except printing)	..	..	..	7	..	..	7	..	..	..	..
Glass Formers, Potters & related workers	..	..	..	2	..	..	2	..	..	..	..
	496	1303	93	399	5	7	504	1858	66	522	2446
Rubber and plastics product makers	..	..	..	4	..	..	4	..	..	..	..
Paper & paper board product makers	..	..	..	..	..	..	..	..	..	..	..
Printing and related workers	..	..	..	2	..	..	2	..	..	..	..
Painters	14	14	..	5	..	..	5	18	1	..	19
Production and related workers n.e.c.	2	..	..	45	..	..	45	..	..	..	..
Bricklayers & other construction workers	311	51	..	2	2	6	10	5	..	..	5
Stationary Engine and related Equipment Operators, oilers & greasers	234	586	13	27	11	7	58	119	182	55	356
Material handling & related Equipment Operators	70	90	354	124	3	20	501	34	9	78	14
Transport equipment operators	94	166	107	75	12	2	196	1164	715	26	1807
	725	907	474	284	28	35	821	1340	907	161	2408
Unskilled workers	2208	3107	1111	543	274	1658	3586	2824	825	318	3967
GRAND TOTAL	5503	6940	10325	6758	2121	6648	25852	7870	3975	5131	16976

Appendix V—Contd.

Description of Occupation	Public Services in administrative department & offices of State Government										
	61	62	63	64	65	66	67	68	69	70	
Physical Scientists	3	707	..	3	1	9	..	..	..	723
Physical Science Technicians	1	..	..	..	194	27	..	..	..	222
Architects, Engineers, Technologists and Surveyors	9	201	13	9	2	26	..	..	1	261
Engineering Technicians	48	484	28	77	10	11	2	..	2	659	
Aircraft and ships officers	..	..	..	..	..	..	..	..	..	..
Life Scientists	1	1	..	94	..	303	5	..	2	406	
Life Science Technicians	..	3	..	9	..	8	16	..	..	36
Physicians and Surgeons (including Dental and Veterinary Surgeons)	76	21	..	19	..	..	737	..	25	878
Nursing and other Medical and Health Technicians	58	53x	3	112	4	3	1249	..	2	1584	
Scientific, Medical and Technical Persons, other	..	1	..	..	..	..	15	..	..	16
	193	1471	44	323	211	387	2124	..	32	4785	
Mathematicians, Statisticians and related workers	22	20	5	6	..	8	3	..	..	64
Economists and related workers	62	23	..	..	..	..	..	..	..	85
Accountants, Auditors and related workers	60	162	69	30	33	4	8	11	50	427	
Social Scientists and related workers	78	22	..	22	42	1	168	..	262	595	
Jurists	66	..	2	..	..	..	..	..	214	69
Teachers	47	18	..	1560	17539	98	7	..	8	19277	
Poets, Authors, Journalists and related workers	9	1	4	..	..	..	..	..	..	14
Sculptors, painters, Photographers and related creative artists	4	5	2	7	1	5	7	..	24	55	
Composers & performing Artists	2	..	..	..	..	..	..	..	202	204
Professional workers, n.e.c.	25	84	1	235	168	160	19	..	29	116	
	375	335	83	1860	17778	276	212	11	576	21506	

Appendix V—Contd.

1	61	62	63	64	65	66	67	68	69	70
Elected and Legislative officials	..	..	..	..	..	..	..	..	..	..
Administrative and Executive Officials Government and Local Bodies	673	363	299	25	68	7	1	..	122	1558
Working Proprietors, Directors and Managers wholesale and retail trade	..	..	..	..	..	..	..	..	..	..
Directors and Managers, Financial Institutions	..	..	..	..	..	..	..	..	..	..
Working Proprietors, Directors and Managers Mining Construction, Manufacturing and related Concerns	..	..	..	..	..	..	..	..	..	..
Working Proprietors, Directors, Managers and related executives, Transport, Storage and communication	..	..	..	..	..	..	..	..	..	..
Working proprietors, Directors & Managers other services	..	..	..	..	..	..	..	..	..	..
Administrative, Executive and Managerial Workers, n.e.c.	..	..	..	..	..	..	..	..	..	..
	673	363	299	30	74	7	24	648	488	2606
Clerical and other Supervisors	826	1443	607	142	234	67	31	..	61	2411
Village officials	847	..	..	..	..	..	..	..	59	906
Stenographers, Typists and card and tape punching operators	358	181	68	77	22	19	10	..	33	768
Book Keepers, Cashiers and related workers	151	21	16	32	9	2	8	69	79	487
Computing Machine Operators	21	49	..	14	..	3	15	..	..	102
Clerical and related workers	1535	1874	770	328	786	118	197	53	263	5924
Transport and communication supervisors	..	2	..	..	..	..	..	..	3	5
Transport conductors and Guards	..	..	..	..	1	..	..	..	..	1
Mail Distributors and related workers	18	2	278	..	..	2	..	..	16	316
Telephone and Telegraph operators	3	8	2	7	..	1	..	3	4	28
	3759	3580	1841	600	1052	212	261	125	518	11948
Merchants and shopkeepers, wholesale and retail trade	..	..	..	..	..	..	..	..	..	..
Manufacturers/Agents	..	..	..	1	..	..	..	..	..	1
Technical Salesmen and Commercial Travellers	..	..	..	..	..	..	..	..	..	..
Salesmen, Shop Assistants and related workers	..	..	4	2	..	..	..	18	36	60
Insurance, Real Estate, Securities and Business Service Salesmen and Auctioneers	..	..	..	..	..	..	..	..	7	7
Money Lenders and Pawn Brokers	..	..	..	..	..	..	..	..	..	..
Sales workers, n.e.c.	..	..	..	..	..	..	..	..	..	..
	..	..	4	3	..	..	..	18	43	68

Appendix V—Contd.

1	61	62	63	64	65	66	67	68	69	70
Hotel and Restaurants keepers	..	..	..	..	..	..	..	..	..	..
House keepers, Matrons and Stewards (Domestic and Institutional)	..	..	..	3	4	1	3	8	1	20
Cooks, Waiters, Bartenders and related workers (Domestic and Institutional)	119	201	..	37	20	..	141	2472	59	3049
Maids and other House keeping service workers, n.e.c.	..	..	..	24	931	3	..	11	1	970
Building caretakers	..	1	72	..	..	1	1	..	2	77
Launderers, Dry cleaners and Pressers	29	51	..	..	3	..	74	4	437	598
Hair Dressers, Barbers, Beauticians and related workers	15	11	..	..	..	..	2	..	220	248
Protective Service Workers	6400	466	..	3	..	1	..	..	7	6877
Service Workers, n.e.c.	..	..	..	..	..	..	..	3	..	3
Service Workers	6563	730	72	67	958	6	221	2498	727	11842
Farm Plantation, Dairy and other Managers and Supervisors	2	..	..	7	..	51	..	..	..	60
Cultivators	..	..	..	..	..	..	..	..	..	..
Farmers other than Cultivators	..	..	..	59	..	1	..	..	..	60
Plantation workers	..	..	..	..	..	..	..	..	..	..
Other Farm workers	49	14	36	100	106	18	59	6	28	416
Forestry workers	..	..	..	..	..	6	..	..	9	15
Hunters and related workers	..	..	..	..	..	..	..	..	..	..
Fishermen and related workers	..	..	..	..	..	..	..	..	..	..
	51	14	36	166	106	76	59	6	37	551
Miners, Quarrymen, Well Drillers and related workers	..	..	..	..	..	..	..	..	..	..
Metal Processors	..	105	1	3	..	1	..	..	..	110
Wood Preparation workers	..	19	1	..	..	..	..	..	..	20
Chemical processors and related workers	..	518	16	4	..	..	..	..	..	538
Spinners, weavers, knitters, dyers and related workers	5	238	13	..	..	..	..	..	4	260
Tanners, Fellmongers and Pelt Dressers	..	201	..	..	..	..	..	..	..	201
Food and Beverage Processors	5	..	5	2	..	1	..	12	2	27
Tobacco preparers and Tobacco product makers	..	..	..	..	..	..	..	..	..	..
Tailors, Dress makers, Sewers, upholsterers and related workers	20	1899	21	..	..	..	8	..	18	1966
	30	2980	57	9	..	2	8	12	24	3122

Appendix—V Concl.

1	61	62	63	64	65	66	67	68	69	70
Shoe makers and leather goods makers	6	1846	..	4	..	..	8	..	..	1864
Carpenters, Cabinet and related wood workers	2	298	1	6	..	3	4	..	3	317
Stone cutters and carvers	..	..	..	..	..	..	..	..	..	..
Blacksmiths, Tool makers and Machine Tool Operators	1	747	13	307	..	4	..	..	6	1078
Machinery Fitters, Machine Assemblers and Precision Instrument makers (except electrical)	8	1124	16	49	5	21	1	3	14	1241
Electrical Fitters and related electrical and Electronic workers	3	230	13	18	1	3	6	..	27	301
Broadcasting Station and Sound Equipment Operators and Cinema Projectionists	1	7	..	1	..	..	4	..	88	101
Plumbers, Welders, Sheet Metal and Structural Metal Preparers and Erectors	..	297	1	2	..	2	4	2	..	208
Jewellery and precious metal workers and metal engravers (except printing)	..	1	..	..	..	..	..	..	..	1
Glass Formers, Potters and related workers	..	1	..	1	..	..	..	..	..	2
	21	4551	44	388	6	33	27	5	128	5213
Rubber and plastic product makers	..	1	..	..	..	..	..	..	..	1
Paper and paper board product makers	..	..	..	..	..	..	..	..	..	..
Printing and related workers	..	61	1	4	..	2	1	..	40	109
Painters	..	107	..	1	..	..	1	..	49	158
Production and related workers, n.e.c.	..	39	..	..	..	..	..	..	6	45
Bricklayers and other construction workers	..	39	5	1	..	..	1	1	..	47
Stationary Engines and related equipment operators, oilers and greasers	5	82	10	38	9	16	8	..	1	171
Material handling and related equipment operators	17	1134	2	6	..	2	3	2	9	1175
Transport equipment operators, labourers, n.e.c.,	61	226	52	53	447	16	52	..	28	935
	83	1689	70	103	456	36	66	3	135	2641
Unskilled workers	2008	5596	1600	1311	3153	287	5356	88	519	19918
GRAND TOTAL	13756	21309	4150	4860	23794	1322	8358	3414	3237	84200

Appendix VI

Women employees by occupation in 1974

Occupations	Number
1	2
I. PROFESSIONAL, TECHNICAL AND RELATED WORKERS	7200
(i) Scientists, engineers and technologists	26
Chemists	23
Electrical engineers	2
Bacteriologists and pharmacologists	1
(ii) Doctors and medical and health technicians	967
Physicians and surgeons—allopathic	86
Physicians—homoeopathic	2
Dentists	1
Pharmacists	15
Vaccinators and dressers	33
Nurses	433
Midwives and health visitors	276
Physiotherapists and occupational therapists	1
Nursing and midwifery attendants	117
Scientific, medical and technical persons—others	3
(iii) Teachers	6072
University and College teachers	186
—Arts	10
—Education	11
—Science	1
—Engineering	47
—Medicine and Surgery	6
—Other subjects	1112
Secondary school teachers	4133
Middle and primary school teachers	494
Teachers—infant school	38
Manual training and art teachers	34
Teachers—others	135
(iv) Accountants, social scientists and other professionals	8
Accountants and auditors	13
Librarians, archivists and curators	1
Personnel and occupational specialists	87
Family planning organisers	9
Village level workers	5
Labour and social welfare workers	6
Composers and performing artists	4
Physical training instructors	2
Laboratory attendants	

Appendix VI—Contd.

1	2
II. ADMINISTRATIVE, EXECUTIVE AND MANAGERIAL WORKERS	160
Administrative and executive officials—Union Government	1
Administrative and executive officials—State Government	8
Working proprietors, directors and managers—wholesale trade	35
Working proprietors, directors and managers—retail trade	29
Directors and managers—bank	2
Working proprietors, directors and managers—manufacturing	63
Working proprietors, directors and managers—transport, storage and communication	3
Working proprietors, directors and managers—lodging and catering	8
Working proprietors, directors and managers—other services	11
III. CLERICAL AND RELATED WORKERS	741
Section Officers	10
Other supervisors and inspectors	14
Office assistants	34
Stenographers and steno-typists	42
Typists and tele-typists	34
Key punch and verifying machine operators	11
Book keepers, accounts and audit clerks	4
Bank and ledger clerks	37
Cashiers	2
Book keeping and calculating machine operators	8
Automatic data processing machine operators	1
Clerks	248
Store keepers and related workers	5
Receptionists	4
Ticket collectors, checkers and examiners	3
Clerical and related workers—others	3
Telephone and telegraph operators	281
IV. SALES WORKERS	11
Salesmen, shop assistants	11
V. SERVICE WORKERS	978
House keepers, matrons and stewards	6
Cooks and cook bearers	6
Butlers, bearers, waiters and bartenders	24
Maids and related house keeping service workers	937
Launderers, dry cleaners and pressers	5
VI. FARMERS, FISHERMEN, HUNTERS, LOGGERS AND RELATED WORKERS	1
Gardeners and nursery workers	1
VII. PRODUCTION AND RELATED WORKERS	1749
Moulders and core makers	1
Metal processors—others	5

Appendix VI—Concl'd.

1	2
Supervisors and foremen—chemical processing	7
Chemical processors	30
Fibre preparers	30
Reelers (textile)	4
Spinners and winders	1344
Spinning and winding operators	11
Warpers and sizers	4
Weavers—handloom	13
Drawing and weaving operatives	6
Carpets and dari weavers	13
Knitters	1
Bleachers, dyers and textile product finishers	2
Grain millers, parchers and related workers	4
Food preservers and canners	2
Bakers, confectioners and sweet meat makers	5
Tobacco preparers and tobacco product makers	17
Supervisors, foremen—tailoring, dress making, sewing and upholstery	16
Tailors and dress makers	15
Carpentry and joining operatives	1
Hammerman and stamper	1
Watch, clock and precision instrument makers (except electrical)	20
Supervisors, foreman—electrical and electronic equipment	7
Electronic fitters	69
Electrical and electronic equipment assemblers	11
Radio and television mechanics and repairmen	5
Electric Linemen and cable jointers	7
Supervisory—broadcasting—audio visual, projection and sound equipment operation	1
Cinematograph operators	2
Glass formers, cutters, grinders and finishers	7
Plastic product makers	14
Paper and paper board product makers	1
Printing pressman	16
Production and related workers, n.e.c.	25
Stationary engine and related equipment operators	2
Packers, labellers and related workers	30
Total	10,840
UN-SKILLED	2,306
GRAND TOTAL	13,146

Appendix VII

Employment growth by economic activity

Economic Activity	Number of employees			Women employees
	1967	1974	1979	1974
1	2	3	4	5
A GRICULTURE, LIVESTOCK	828	1446	1697	3
Production of cereal and cash crops	326	706	723	..
Rearing of livestock etc.	502	740	974	3
MANUFACTURING	101837	132533	163845	1991
Rice, atta, flour	885	1788	2673	12
Sugar	..	..	282	..
Jam	..	5	10	..
Bakery products	492	1173	1712	6
Butter, ghee and cheese	82	530	548	6
Edible, fats and oils	710	1216	1658	4
Hydrogenated oils (vanaspati)	462	553	583	..
Sweet-meat and condiments	423	855	1198	10
Distilled spirit, wine	..	48	48	..
Aerated and mineral water	16	293	293	..
Ice	120	190	249	1
Ice-cream	26	105	132	..
Bidi, jarda and tobacco products	223	398	533	23
Cotton ginning, pressing and spinning (other than in mills)	16	160	160	..
Cotton spinning and weaving in mills	42390	42721	42721	21
Cotton and silk dyeing and bleaching	60	206	986	1
Cotton weaving in power looms	310	621	969	73
Cotton weaving in handlooms	953	1254	1803	391
Cotton cordage, rope and belts	441	700	1088	29
Other cotton textiles and printing	257	295	422	..
Jute spinning and weaving and other jute products	3369	4469	4482	23
Wool spinning and weaving	3372	4443	4443	29
Carpets and daries	1936	2526	3460	919
Hosiery and knitted fabrics	280	669	1031	7
Embroidery and crepe lace	22	290	532	..
Miscellaneous textile products such as pillow cases, curtains, tarpaulins	4021	4126	4561	..
Textile Garments	1226	3410	5312	16
Sawing and planing of wood	492	1144	1748	1
Wooden furniture, structural material, boxes and packing cases	256	682	1013	2
Paper, paper board and paper products	176	367	515	2
Printing and publishing of newspapers	188	336	394	5
Printing and publishing of books	534	1108	1651	6
Lithography, block-making, binding and all other type of printing	484	622	796	17
Carrying, tanning and finishing of hides	2001	2878	3906	4
Shoes and other leather foot-wear	862	4016	4686	3
Other leather products	307	580	813	2
Tyres and tubes	103	311	427	..
Other rubber goods and products	61	361	606	..
Basic industrial chemicals such as acids and alkalies	687	999	1403	2
Dyes, paints and varnishes	338	513	692	7

Appendix VII---Contd.

	1	2	3	4	5
Fertilizer		..	1233	1313	22
Medicines, pharmaceuticals and cosmetics		614	897	1231	49
Soap and cleaning compounds		100	237	445	2
Turpentine, synthetic resin and plastic products		2217	3730	4530	16
Other chemical products such as matches, common salt and ph.		130	380	620	..
Bricks and tiles		283	874	1458	4
Lime, cement and stone goods		97	190	263	1
Earthen wares, chinaware and crockery		60	77	142	2
Smelting, refining and rerolling of iron and steel		3193	3781	4995	1
Smelting and refining of non-ferrous metals		18	55	78	..
Structural steel products		40	89	163	..
Iron and Steel furniture		616	731	1368	..
Brass and belt metal products		107	205	248	..
Aluminium products		194	650	870	7
Metal products such as tin can		506	936	1539	1
Enamelling, galvanising and welding		280	584	866	..
Sundry hardwares		1933	3776	6583	4
Agricultural implements and oil engines etc.		583	1317	1984	..
Prime movers, boilders, road rollers etc.		221	332	471	..
Machine tools and textile machinery		212	239	284	..
Electrical motors and transformers		23	101	171	..
Electric lamps & fans		399	766	1491	14
Insulated wires & cables and batteries		75	192	208	..
Electronic equipments, such as radio & microphones, tape records		75	426	824	99
Electrical apparatus and appliances		77	179	292	..
Motor vehicles, engine parts & accessories		79	273	575	..
Repairing & servicing of motor vehicles		3713	5187	6657	4
Bicycles, tricycles & accessories		317	397	619	..
Aeroplanes & aero-engines		2649	3524	3524	21
Repairing of bicycles & tricycles		88	226	326	..
Jewellery & silver wares		96	145	185	..
Stationery articles		130	237	546	..
Miscellaneous manufacturing industries		13485	13444	16944	103
Scientific, medical & surgical instruments & equipments		51	162	1491	19
CONSTRUCTION		3930	5503	5435	7
Construction & maintenance of building		3061	3827	3745	5
Construction & maintenance of telegraph and telephone lines		..	477	478	..
Construction & maintenance of dams, canals, tanks etc.		869	1199	1212	2
ELECTRICITY, GAS, WATER AND SANITARY SERVICES		5092	6940	8140	38
Generation & transmission of electric energy		1966	3468	4429	32
Distribution of electric energy		2214	2569	2580	6
Gas for domestic & industrial consumers		248	280	280	..
Purification & distribution of water		664	623	851	..

Appendix VII—Contd.

1	2	3	4	5
TRADE AND COMMERCE	15218	25852	31579	212
Wholesale trade	6647	10325	12898	56
Retail trade	3410	6758	9159	64
Banking	3297	6648	7373	56
Providents & insurances	1864	2121	2149	36
TRANSPORT, STORAGE AND COMMUNICATIONS	12234	16976	19862	349
Transporting by railways	6870	7870	8085	29
Transporting by bus services	1810	2087	2106	1
Transporting by motor vehicles (other than omnibus)	645	1888	2837	6
Transporting by air	55	62	67	..
Operation of storage	94	146	190	..
Postal & telegraphic communication	2054	3533	3687	4
Telephone communication	678	1343	2836	299
Information & broadcasting	28	47	54	10
SERVICES	67945	84200	96371	10546
Public services in administrative departments & offices of Central Government	20217	21309	21887	156
Public services in administrative departments & offices of Quasi-Government, Local Bodies	3224	4150	5845	183
Public services in administrative departments & offices of State Government	11138	13756	15827	146
Educational services (Technical)	3715	4860	5380	210
Educational services (non-technical)	17542	23794	27615	7174
Scientific services & research institutions	1046	1322	1467	4
Public health & medical services	7329	8358	8900	2631
Religious services	89	117	126	..
Legal services	12	12	12	..
Business services	86	112	137	..
Community services	863	1189	1808	25
Recreation services	513	755	957	..
Hotels & restaurants	1600	3414	4976	14
Laundry services	358	647	857	3
Personal services	213	405	575	..
Total]	207084	273450	326929	13146

Appendix VIII

Employment growth by occupation

Occupation	Number of employees		
	1967	1974	1979
1	2	3	4
1. (i) PROFESSIONAL, TECHNICAL & RELATED WORKERS	24123	32328	39031
Scientists, engineers & Technologists	4662	6380	7589
Chemists	722	789	961
Geologists & Geophysicists	..	28	28
Meteorologists	2	2	2
Physical Scientists	66	61	61
Physical Science Technicians	192	311	349
Civil Engineers	253	335	381
Electrical Engineers	131	300	390
Mechanical engineers—Production	38	112	122
Mechanical engineers—Automobile	16	35	47
Mechanical engineers—Aeronautical	9	73	115
Mechanical engineers—Other	133	227	318
Chemical engineers	15	67	109
Metallurgists	10	15	29
Mining engineers	2	2	37
Industrial engineers	43	101	102
Surveyors	4	7	8
Works Inspectors, engineering	1	77	82
Textile technologists	96	117	178
Spinning & Weaving Masters	58	65	65
Dyeing, bleaching & printing masters	28	42	44
Rubber technologists	7	88	105
Engineers & technologists—other	14	35	53
Draughtsmen—civil	64	96	97
Draughtsmen—Mechanical	269	337	456
Draughtsmen—other	7	12	17
Overseers—civil engineering	332	535	606
Permanent way inspectors & other civil engineering technicians	25	50	49
Technicians—Telecommunication	98	150	150
Technicians—Electrical & Electronic	52	140	191
Technicians—Aeronautical engineering	265	257	262
Technicians—Mechanical engineering	1205	1140	1316
Technicians—Chemical engineering	11	14	14
Technicians—Survey	12	10	11
Tracers, blue printers & other technicians	181	227	58
Biologists, Zoologists & Botanists	49	72	73
Bacteriologists & Pharmacologists	8	24	34
Silviculturists & wood anatomists	48	92	92
Agronomists & agricultural scientists	167	285	305
Life Science Technicians	29	50	90
(ii) Doctors and medical and health technicians	2401	3058	3466
Physicians & Surgeons—Allopathic	318	379	404
Physicians, Ayurvedic & Unani	49	55	65

Appendix VIII—Contd.

1	2	3	4
Physicians, Homeopathic	19	23	23
Dentists	..	2	2
Veterinarians	13	18	40
Chemists, Pharmaceutical	25	54	72
Pharmacists	465	527	567
Health Officers	10	11	11
Vaccinators & Dressors	224	302	302
Veterinary Assistants	223	300	362
Laboratory Assistants, Pharmaceutical	59	78	81
Nurses	448	508	633
Midwives & health visitors	142	276	279
X-ray technicians	21	30	36
Physiotherapists & Occupational therapists	..	3	3
Nursing & Midwifery Attendants	313	422	484
Sanitary inspectors & daroghas	62	54	60
Scientific, Medical & Technical persons—other	10	16	42
(iii) Teachers	14636	19385	23866
University & College Teachers —Arts	430	515	906
—Commerce	38	42	124
—Education	33	57	83
—Law	22	37	51
—Science	297	355	453
—Engineering	689	949	1121
—Medicine & Surgery	149	211	253
—Agriculture	120	115	115
—Other subjects	6	19	87
Secondary School Teachers	3056	3744	4592
Middle & Primary School Teachers	9182	12443	15053
Teachers—Infant School	444	642	749
Manual Training & Art Teachers	75	85	100
Teachers—Other	95	171	179
(iv) Accountants, Soical Scientists & other Professionals	2424	3505	4110
Statisticians	26	24	26
Actuary	1	1	1
System analyst & programmers	..	17	17
Statistical assistants	22	44	46
Economic investigators	38	106	104
Accountants & auditors	1013	1404	1653
Cost accountants	5	8	11
Psychologists	..	1	7
Librarians, archivists & Curators	52	75	108
Translators	6	9	10
Personnel & Occupational specialists	23	40	38
Family planning organisers	47	170	176
Village level workers	179	227	227
Labour & Social Welfare workers	164	175	194
Jurists	85	79	89
Poets, authors, journalists & related workers	32	61	73
Sculptors, painters, photographers and related creative artists	53	65	66
Composers & performing artists	88	214	358
Priests & purohits	14	29	37
Physical training instructors & sports coach	19	38	47
Laboratory attendants	557	718	822

Appendix VIII—Contd.

	1	2	3	4
II. ADMINISTRATIVE, EXECUTIVE & MANAGERIAL WORKERS	9479	16830	22317	
Administrative & executive officials, Union Government	241	397	434	
Administrative & executive officials, State Government	1184	1124	1173	
Administrative & executive officials, Quasi-Government	106	189	435	
Administrative & executive officials, Local bodies	140	122	122	
Working proprietors, directors & managers—Whole sale trade	1991	3249	4157	
Working proprietors, directors & managers—Retail trade	1096	2014	2682	
Directors & managers—Bank	273	797	885	
Directors & Managers—Insurance	234	257	257	
Working proprietors, directors & managers—Mines, Construction Gas & electricity	29	31	31	
Working proprietors, directors & managers—Manufacturing	3384	7088	9940	
Working proprietors, directors & managers—Transport, Storage & Communication	261	514	731	
Working proprietors, directors & managers—Lodging & Catering	284	650	969	
Working proprietors, directors & managers—Recreation & entertainment	81	111	129	
Working proprietors, directors & managers—Other services	175	287	372	
III. CLERICAL & RELATED WORKERS	27398	37398	42271	
Section officers	806	1265	1327	
Other supervisors & inspectors	817	1073	1271	
Office assistants	2505	4027	4340	
Village officials	1071	1035	1062	
Stenographers & Stenotypists	577	925	1084	
Typists & teletypists	716	927	1028	
Key punch & Verifying machine operators	45	82	82	
Book-keepers, accounts & audit clerks	368	458	527	
Bank & ledger clerks	2011	3846	4827	
Cashiers	837	1416	1556	
Book-keeping & Calculating machine operators	90	161	159	
Automatic data processing machine operator	..	5	5	
Clerks	11888	13629	15321	
Store-keepers & related workers	1234	1865	2125	
Receptionists	28	48	60	
Time keepers	110	132	145	
Ticket sellers	432	661	849	
Ticket collectors, checkers & examiners	341	260	268	
Bill collectors	872	1098	1218	
Clerical & related workers—Other	94	150	163	
Station masters—Transport	65	65	65	
Post-masters, Telegraph masters & other supervisors	36	628	628	
Transport & Communication Supervisors n.e.c.	238	259	265	
Guards—train	44	41	41	
Bus conductors	468	555	565	
Mail distributors & related workers	1410	2204	2276	
Telephone & telegraph operators	395	583	1014	
IV. SALES WORKERS	3200	6002	7915	
Field officers—Insurance	58	73	76	
Sales supervisors—Wholesale & retail trade	44	36	37	
Purchasing, selling & manufacturers agents	33	77	133	
Technical salesmen & Commercial travellers	83	153	166	
Salesmen, shop assistants & related workers	3044	5636	7472	
Propagandists, Finance agents & money lenders	18	27	31	
V. SERVICE WORKERS	7563	12609	14445	
House keepers, matrons & stewards	11	21	30	
Cooks & Cook bearers	1057	1881	2591	

Appendix VIII—Contd.

	1	2	3	4
Butlers, bearers, waiters & bartenders		887	1540	2091
Maids & related house keeping service workers		760	1008	1210
Building caretakers		79	86	89
Launderers, dry-cleaners & pressers		378	708	957
Hair dressers & barbers		108	250	327
Protective Service Workers		4281	7112	7146
Tourist Guides		2	3	4
VI. FARMERS, FISHERMEN, HUNTERS, LOGGER & RELATED WORKERS		802	1653	1922
Farm, plantation, dairy & other managers & supervisors		146	205	205
Farmers, Live stock, dairy & poultry		78	105	128
Farm machinery operators		6	36	45
Farm workers—Animals & birds		112	330	424
Gardeners & Nursery Workers		457	949	1085
Forestry workers		3	28	32
Fishermen & related workers		3
VII. PRODUCTION & RELATED WORKERS AND TRANSPORT EQUIPMENT OPERATORS		96461	120003	143488
(i) Production & related workers		93581	115988	139055
Miners & Quarrymen		17	10	10
Mineral treaters		584	742	742
Supervisors & foreman—metal smelting, converting & refining		139	149	242
Metal smelting, converting & refining furnaceman		93	166	273
Metal rolling mill workers		446	559	809
Metal melters & re-heaters		935	921	1085
Metal casters		43	55	61
Moulders & Core makers		414	618	933
Metal annealers & temperers		165	148	151
Metal drawers & extruders		152	368	522
Metal plators & coaters		92	191	239
Metal processors—Other		207	237	301
Supervisors & foreman—wood preparation & paper making		3	9	11
Wood sawyers & related wood processing workers		255	571	851
Paper pulp & paper makers		70	105	157
Supervisors & foremen—Chemical processing		385	635	969
Crushers, grinders & mixers—Chemical		505	718	812
Cookers, roasters & heat treaters—Chemical		104	547	687
Filter & separator operators—Chemical		11	18	26
Still & reactor operators—Chemical		64	63	66
Chemical processors—Others		410	773	1159
Jobber (Textile)		696	634	642
Supervisors & foremen—Spinning, Weaving, Knitting & Dyeing		571	956	986
Fibre preparers		3454	4222	4356
Drawing, slubbing & inter tenters		1394	1258	1265
Piecers		2538	2618	2683
Twisters		481	635	638
Realers (Textile)		673	589	591
Spinners & Winders—Other		6629	8042	8824
Spinning & Winding operatives		6682	6139	6180
Warpers & sizers		880	968	980
Weaving & Knitting machine setters and pattern card preparers		3201	1609	1627
Weavers—Powerloom		10416	10691	10822
Weavers—Handloom		443	642	1015
Weavers & drawers—Others		809	869	916
Drawing & Weaving operatives		517	545	851
Carpet & dari weavers		886	1193	1743

Appendix VIII--Contd.

1	2	3	4
Knitters	82	185	305
Bleachers, dyers & textile product finishers	528	743	924
Bleaching, dyeing, printing & finishing operatives	2101	2019	2100
Spinners, weavers, knitters, dyers and related workers n.e.c.	522	765	776
Supervisors & foreman, tanning and pelt dressing	17	38	59
Tanners & fell mongers	580	1116	1515
Supervisors & foreman, Food & beverage processing	41	146	152
Grain millers, parchers & related workers	572	978	1516
Crushers & pressers—oil seeds	151	348	509
Khandsari, Sugar & Gur makers	9	10	124
Food preservers & Canners	2	4	7
Dairy product processors	22	64	80
Bakers, Confectioners & Sweet-meat makers	457	977	1771
Browsers, aerated water & beverage makers	30	279	279
Tobacco preparers & tobacco product makers	100	203	308
Supervisors & foreman, tailoring dress making, sewing & upholstery	298	204	204
Tailors & dress makers	5439	5755	6637
Pattern makers & cutters	267	923	1440
Sewers & embroiders	536	1071	1461
Upholsterers & related workers	107	216	329
Supervisors & foremen, Shoe & leather goods making	9	96	96
Shoe makers & repairers	186	588	1003
Shoe cutters, lasters, sewers & related workers	546	2196	2382
Harners & Saddle makers	1124	1739	1762
Leather goods makers	247	552	829
Supervisors & foremen, Carpentry Cabinet making & related wood working process	2	12	15
Carpenters	1115	1146	1482
Carpentry & Joinery operatives	68	132	176
Furniture & Cabinet makers	67	182	259
Wood working machine operators	35	59	96
Coach & body builders	7	32	55
Carpenters, Cabinet makers & related workers, other	77	151	211
Stone cutters & carvers]	..	4	8
Supervisors & foremen, blacksmithy	34	35	48
Supervisors & foremen, tool making	190	190	236
Supervisors & foreman, machine tool operations	41	60	95
Blacksmiths	506	742	1064
Hammers & stampermen	334	360	477
Smithy operatives	2474	2569	3319
Markers, metal	75	38	39
Tool makers & metal pattern makers	191	195	357
Machine tool setters	378	395	397
Machinists	2829	3004	3440
Turners & lathe operators	1291	1658	2247
Shapers, planners, sloters & millers	154	318	442
Gear cutters	160	162	180
Drillers & borers	86	141	163
Machine tool operators—other	406	622	914
Metal grinders, polishers & tool sharpeners	375	558	885
Power press operators & metal stampers	203	181	237
Tool makers & machine tool operators—other	81	238	342
Supervisors & foremen, machinery fitting & repairing	38	159	180
Supervisors & foremen, motor vehicle repairing	56	87	121
Supervisors & foremen, Aircraft repairing	45	64	64
Supervisors & foremen, precision instrument making (except electrical)	8	15	15

Appendix VIII—Contd.

1	2	3	4
Watch, clock & precision instrument makers (except electrical)	112	259	713
Fitters	5394	6230	6690
Assemblers, textile machinery	486	477	479
Machinery fitters & machine assemblers	976	1140	1275
Motor vehicle mechanics	458	1126	1654
Aircraft engine mechanics	260	323	323
Mechanics, petrol & diesel engine	54	96	125
Tractor mechanics	28	48	64
Millwright	135	172	272
Mechanics, textile machinery	372	599	701
Mechanics, Refrigeration & Air-conditioning	58	113	128
Fitters, bicycle	102	207	277
Mechanics & repairmen—other	94	145	179
Overhauling & repairing operatives	855	950	1032
Viewers—workshop	1023	188	313
Machine assemblers & machinery fitters n.e.c.	2	59	130
Supervisors & foremen, electrical and electronic equipment	111	221	373
Engineering supervisors & inspectors telephone & telegraph	27	44	197
Electrical supervisors & wiring	67	66	67
Line supervisors—electrical	141	140	143
Electricians	160	842	1262
Mechanics precision instruments electrical	32	44	44
Electrical fitters	130	177	361
Electricians, electrical repairmen and related electrical operatives	183	657	672
Electronics fitters	..	176	195
Electrical & electronics equipment assemblers	73	142	208
Radio & television mechanics and repairmen	24	85	106
Electrical wiremen	485	513	575
Telephone & telegraph installers and repairmen	68	171	457
Electric Linemen & Cable Jointers	434	589	1083
Armature winders	63	84	102
Battery servicemen & repairers	51	74	80
Electrical & electronic workers—other	20	73	78
Supervisors broadcasting, audio-visual, projection & sound equipment operations	5	10	14
Cinematograph operators	70	101	106
Supervisors & foremen, plumbing & pipe fitting	7	7	7
Supervisors & foremen, welding	3	16	16
Supervisors & foremen, Sheet metal	9	19	22
Plumbers & pipe fitters	61	94	110
Welders & flame cutters	785	1147	1700
Sheet metal workers	168	252	441
Tin smiths	200	423	582
Sheet metal working operatives	133	315	530
Metal plate & structural metal workers	410	548	571
Jewellers, gold smiths & silver smiths	63	103	131
Other metal engravers	46	56	194
Supervisors & foremen—glass forming, pottery & related activity	10	10	11
Glass formers, cutters, grinders & finishers	75	240	434
Potters, Kilnmen, engravers etchers & related workers	112	265	611
Supervisors & foremen—Rubber goods making	4	8	51
Supervisors & foremen—Plastic product making	10	20	28
Plastic product makers	357	799	1318
Rubber product makers	78	209	362
Tyre makers & Vulcanisers	137	276	389
Paper & paper board product makers	63	159	231

Appendix VIII—Concl'd.

1	2	3	4
Supervisors & foremen—Printing & related work	7	22	24
Compositors	217	410	563
Type setters & photo-type setters	14	32	40
Printing pressmen	346	617	923
Stereo-typers & electro-typers	4	3	3
Engravers printing	1	4	5
Photo engraver	15	19	24
Book-binders & related workers	126	229	360
Photographic dark room workers	25	52	66
Printers & related workers, n.e.c.	1	6	10
Painters	337	533	705
Production & related workers, n.e.c.	924	835	1139
Bricklayers & other construction workers	479	662	654
Boiler supervisors	5	4	4
Supervisors & foremen—Stationary engine & related equipment	3	6	7
Electrical switch board operators	104	106	116
Air conditioning & refrigeration Plant attendants	59	91	121
Pump-men	251	372	421
Stationary engine & related equipment	422	522	534
Operators—other			
Boilermen & firemen	587	707	806
Oilers & greasers	1195	1605	1786
Supervisors & foremen—material and freight handling	101	98	98
Supervisors & foremen—Checking, sorting, packing & related activity	9	6	9
Rigger & slingers	109	181	172
Crane & hoist operators	178	193	192
Earth moving & related machinery operators	72	115	116
Checkers, testers, sorters, weighters and counters	656	1640	1747
Packers, labellers & related workers	1027	1594	2024
Tractor drivers—construction	13	23	23
Liftmen	47	57	62
(ii) Transport equipment operators	2880	4015	4433
Boatmen	4	4	4
Drivers—railways	595	624	624
Firemen—railways	347	349	349
Pointsmen, signalmen & shunters—railways	111	143	144
Trolley & train drivers	25	17	17
Drivers—car	499	799	841
Drivers—ambulance	24	28	31
Drivers—bus	501	589	603
Drivers—truck	442	809	957
Drivers—fire brigade vehicles	62	80	80
Drivers—other vehicles	52	78	78
Drivers—Animal drawn vehicles	6	9	12
Drivers—cycle rickshaw	194	465	667
Traffic hand, gliding	9	4	4
Hand cart men	9	17	22
Unskilled	37978	46627	55540
GRAND TOTAL	207084	273450	326929

Appendix IX

Manpower Requirements

Occupation	Manpower Requirements by 1979
1	2
I. PROFESSIONAL, TECHNICAL & RELATED WORKERS	10907
(i) Scientists, engineers & technologists	2153
Chemists	333
Geologists & Geophysicists	3
Physical scientists	6
Physical science technicians	71
Civil engineers	106
Electrical engineers	127
Mechanical engineers—Production	22
Mechanical engineers—Automobile	16
Mechanical engineers—Aeronautical	49
Mechanical engineers—Other	129
Chemical engineers	50
Metallurgists	16
Mining engineers	35
Industrial engineers	10
Surveyors	2
Works inspectors, engineering	13
Textile technologists	73
Spinning & weaving masters	7
Dyeing, bleaching & printing masters	6
Rubber technologists	31
Engineers & technologists—Other	22
Draughtsmen—Civil	11
Draughtsmen—Mechanical	179
Draughtsmen—Other	7
Overseers—civil engineering	154
Permanent way inspectors & other civil engineering technicians	5
Technicians—Telecommunication	15
Technicians—Electrical & electronic	93
Technicians—Aeronautical engineering	31
Technicians—Mechanical engineering	341
Technicians—Chemical engineering	1
Technicians—Survey	2
Tracers, blue printers & other technicians	58

Appendix IX—Contd.

1	2
Biologists, zoologists & botanists	12
Bacteriologists & Pharmacologists	13
Silviculturists & wood anatomists	9
Agronomists & agricultural scientists	49
Life science technicians	46
(ii) Doctors and medical & health technicians	986
Physicians & surgeons—allopathic	194
Physicians, Ayurvedic & Unani	16
Physicians, Homoeopathic	2
Veterinarians	24
Chemists, pharmaceutical	23
Pharmacists	100
Health officers	1
Vaccinators & dressers	86
Veterinary assistants	97
Laboratory assistants, pharmaceutical	11
Nurses	213
Midwives & health visitors	51
X-ray technicians	23
Nursing & midwifery attendants	105
Sanitary inspectors & daroghas	12
Scientific, medical & technical persons—other	28
(iii) Teachers	6778
University & College teachers—Arts	442
—Commerce	86
—Education	32
—Law	18
—Science	133
—Engineering	279
—Medicine & Surgery	63
—Agriculture	16
—Other subjects	70
Secondary School teachers	1248
Middle & Primary School teachers	4169
Teachers—infant school	171
Manual training & art teachers	25
Teachers—other	26
(iv) Accountants, social scientists & other professionals	990
Statisticians	5
System analyst & programmers	2
Statistical assistants	10

Appendix IX—Contd.

1	2
Economic investigators	11
Accountants & auditors	394
Cost accountants	6
Psychologists	6
Librarians, archivists & curators	43
Translators	3
Personnel & occupational specialists	5
Family planning organisers	23
village level workers	23
Labour & social welfare workers	38
Jurists	18
Poets, authors, journalists & related workers	18
Sculptors, painters, photographers and related creative artists	8
Composers & performing artists	165
Priests & purohits	11
Physical training instructors & sports coach	13
Laboratory attendants	188
II. ADMINISTRATIVE, EXECUTIVE & MANAGERIAL WORKERS	7246
Administrative & executive officials, Union Government	90
Administrative & executive officials, State Government	192
Administrative & executive officials, Quasi-Government	297
Administrative & executive officials, Local bodies	12
Working proprietors, directors & managers—Wholesale trade	1233
Working proprietors, directors & managers—Retail trade	869
Directors & managers—Bank	168
Directors & managers—Insurance	26
Working proprietors, directors & managers—Mines, Construction Gas & Electricity	3
Working proprietors, directors & managers—Manufacturing	3561
Working proprietors, directors & managers—Transport, Storage & Communication	268
Working proprietors, directors & managers—Lodging & Catering	384
Working proprietors, directors & managers—Recreation & entertainment	29
Working Proprietors, directors & managers—other services	114
III. CLERICAL & RELATED WORKERS	8952
Section Officers	207
Other supervisors & inspectors	322
Office assistants	773
Village officials	131
Stenographers & Stenotypists	281
Typists & teletypists	212
Key punch & Verifying machine operators	8
Book-keepers, accounts & audit clerks	116
Bank & ledger clerks	1367

Appendix IX—Contd.

1	2
Cashiers	283
Book-keeping & Calculating machine operators	20
Clerks	3192
Store-keepers & related workers	495
Receptionists	17
Time keepers	26
Ticket sellers	254
Ticket collectors, checkers & examiners	34
Bill collectors	231
Clerical & related workers—other	30
Station masters—Transport	6
Post masters, Telegraph masters & other supervisors	64
Transport & Communication supervisors—n.e.c.	32
Guards—train	4
Bus conductors	66
Mail distributors & related workers	292
Telephone & telegraph operators	486
IV. SALES WORKERS	2513
Field officers—insurance	10
Sales supervisors—Wholesale & retail trade	5
Purchasing, selling & manufacturers agents	64
Technical salesmen & Commercial travellers	28
Salesmen, shop assistants & related workers	2399
Propagandists, Finance agents & money lenders	7
V. SERVICE WORKERS	3150
House keepers, matrons & stewards	11
Cooks & cook bearers	898
Butlers, bearers, waiters & bartenders	706
Maids & related house keeping service workers	303
Building caretakers	12
Launderers, dry-cleaners & pressers	320
Hair dressers & barbers	102
Protective service workers	797
Tourist guides	1
VI. FARMERS, FISHERMEN, HUNTERS, LOGGERS & RELATED WORKERS	444
Farm, plantation, dairy & other managers and supervisors	20
Farmers, livestock, dairy & poultry	34
Farm machinery operators	13
Farm workers—Animals & Birds	127
Gardeners & nursery workers	239
Forestry workers	8
Fishermen & related workers	3

Appendix IX—Contd.

1	2
VII. PRODUCTION & RELATED WORKERS AND TRANSPORT EQUIPMENT OPERATORS	43374
(i) Production & related workers	42526
Miners & Quarrymen	1
Mineral treaters	74
Supervisors & foremen—metal smelting, converting & refining	108
Metal smelting, converting & refining furnacemen	134
Metal rolling mill workers	306
Metal melters & re-heaters	261
Metal casters	26
Moulders & core makers	446
Metal annealers & temperers	18
Metal drawers & extruders	191
Metal platers & coaters	81
Metal processors—other	90
Supervisors & foremen—wood preparation & paper making	3
Wood sawyers & related wood processing workers	341
Paper pulp & paper makers	63
Supervisors & foremen—Chemical processing	176
Crushers, grinders & mixers—Chemical	166
Cookers, roasters & heat treaters—Chemical	195
Filter & separator operators—Chemical	10
Still & reactor operators—Chemical	9
Chemical processors—others	466
Jobber (Textile)	71
Supervisors & foremen—spinning, weaving, knitting & dyeing	126
Fibre preparers	1037
Drawing, stubbing & inter tenters	146
Piecers	385
Twisters	167
Reelers (Textile)	61
Spinners & Winders—other	1598
Spinning & Winding operatives	692
Warpers & sizers	109
Weaving & knitting machine setters and pattern card preparers	179
Weavers—powerloom	1200
Weavers—handloom	449
Weavers & drawers—others	152
Drawing & weaving operatives	705
Carpet & dari weavers	669
Knitters	120
Bleachers, dyers & textile product finishers	275
Bleaching, dyeing, printing & finishing operatives	288

Appendix IX—Contd.

1	2
Spinners, weavers, knitters, dyers and related workers, n.e.c.	88
Supervisors & foremen, tanning and pelt dressing	25
Tanners & fellmongers	704
Supervisors & foremen, food & beverage processing	21
Grain millers, parchers & related workers	636
Crushers & pressers—oil seeds	196
Khandsari, Sugar & Gur makers	115
Food Preservers & Canners	3
Dairy product processors	22
Bakers, confectioners & sweet-meat makers	892
Brewers, aerated water & beverage makers	28
Tobacco preparers & tobacco product makers	125
Supervisors & foremen, tailoring dress making, sewing & upholstery	21
Tailors & dress makers	3302
Pattern makers & cutters	609
Sewers & embroiders	498
Upholsterers & related workers	135
Supervisors & foremen, shoe & leather goods making	10
Shoe makers & repairers	477
Shoe cutters, lasters, sewers & related workers	461
Harness & saddle makers	1499
Leather goods makers	335
Supervisors & foremen, Carpentry Cabinet making & related wood working process	5
Carpenters	590
Carpentry & Joinery operatives	57
Furniture & cabinet makers	95
Wood working machine operators	44
Coach & body builders	26
Carpenters, Cabinet makers & related workers, other	77
Stone cutters & carvers	4
Supervisors & foremen, blacksmithy	17
Supervisors & foremen, tool making	65
Supervisors & foremen, machine tool operations	41
Blacksmiths	493
Hammermen & stampers	287
Smithy operatives	1016
Markers, metal	53
Tool makers & metal pattern makers	520
Machine tool setters	148
Mechanists	1199
Turners & lathe operators	842
Shapers, Planers, Sloters & millers	180

Appendix IX—Contd.

1	2
Gear Cutters	69
Drillers & borers	36
Machine tool operators—other	358
Metal grinders, polishers & tool sharpeners	434
Power press operators & metal stampers	142
Tool makers & machine tool operators—other	135
Supervisors & foremen, machinery fitting & repairing	37
Supervisors & foremen, motor vehicle repairing	44
Supervisors & foremen, Aircraft repairing	27
Supervisors & foremen, precision instrument making (except electrical)	2
Fitters	1565
Assemblers, textile machinery	53
Machinery fitters & machine assemblers	250
Motor vehicle machenics	644
Aircraft engine mechanics	158
Mechanics, petrol & diesel engine	39
Tractor mechanics	22
Mill wright	156
Mechanics, textile machinery	162
Mechanics, Refrigeration & Airconditioning	28
Fitters, bicycle	90
Mechanics & repairmen—other	49
Overhauling & repairing operatives	214
Viewers—workshop	167
Machine assemblers & machinery fitters, n.e.c.	77
Supervisors & foremen, electrical & electronic equipment	177
Engineering supervisors & inspectors telephone & telegraph	157
Electrical supervisors—wiring	22
Line supervisors—electrical	17
Electricians	542
Mechanics precision instruments electrical	7
Electrical fitters	202
Electricians, electrical repairmen and related electrical operatives	88
Electronics fitters	51
Electrical & electronics equipment assemblers	80
Radio & television mechanics & repairmen	30
Electrical wiremen	140
Telephone & telegraph installers & repairmen	304
Electric linemen & cable jointers	554
Armature winders	29
Battery servicemen & repairers	58
Electrical & electronic workers—other	13
Supervisors broadcasting, audio-visual, projection & sound equipment operations	5
Cinematograph operators	15
Supervisors & foremen, plumbing & pipe fitting	15
Supervisors & foremen, Welding	2
Supervisors & foremen, sheet metal	5
Plumbers & pipe fitters	29
Welders & flame cutters	829
Sheet metal workers	219
Tin smiths	229
Sheet metal working operatives	247
Metal plate & structural metal workers	79
Jewellers, goldsmiths & silver smiths	39

Appendix IX—Concl'd.

1	2
Other metal engravers	148
Supervisors & foremen—glass forming, pottery & related activity	2
Glass formers, cutters, grinders & finishers	228
Potters, kilnmen, engravers, etchers & related workers	373
Supervisors & foremen—Rubber goods making	44
Supervisors & foremen—Plastic product making	10
Plastic product makers	598
Rubber product makers	174
Tyre makers & vulcanisers	141
Paper & paper board product makers	88
Supervisors & foremen—Printing & related work	4
Compositors	194
Type setters & photo-type setters	11
Printing pressmen	372
Engravers printing	1
Photo engraver	10
Book-binders & related workers	155
Photographic dark room workers	23
Printers & related workers, n.e.c.	5
Painters	249
Production & related workers, n.e.c.	412
Brick layers & other construction workers	185
Supervisors & foremen—stationary engine & related equipment	2
Electrical switch board operators	30
Air-conditioning & refrigeration plant attendants	38
Pump-men	91
Stationary engine & related equipment operators—other	70
Boilermen & firemen	183
Oilers & greasers	361
Supervisors & foremen—material & freight handling	17
Supervisors & foremen—checking, sorting, packing & related activity	4
Rigger & slingers	35
Crane & hoist operators	21
Earth moving & related machinery operators	14
Checkers, testers, sorters, weighers and counters	406
Packers, labellers & related workers	627
Tractor drivers—construction	10
Lift-men	11
(ii) Transport equipment operators	848
Drivers—railways	63
Firemen—railways	35
Pointsmen, signalmen & shunters—railways	15
Trolley & train drivers	2
Drivers—car	123
Drivers—ambulance	8
Drivers—bus	73
Drivers—truck	249
Drivers—fire brigade vehicles	10
Drivers, other vehicles	10
Drivers—Animal drawn vehicles	4
Drivers—cycle rickshaw	249
Hand cart men	7
Unskilled	13821
GRAND TOTAL	90407

Appendix X
EDUCATIONAL & TRAINING FACILITIES

Part (a) Details of Educational Institutions

Sl. No.	Particulars of Institutions Name & Address	Courses Taught	Duration of course	Minimum admission requirement	Method of Admission	Details of awards			Tuition fees (Rs.)	Scholarship on stipend	Month of commencement	Sanctioned Intake capacity for each course
						Nature of title	Whether recognised Yes/No	Authority confirming awards				
1	2	3	4	5	6	7	8	9	10	11	12	13
1.	Arjun Mahila Shilp Kala Kandy, 115 Plot No., O. Block, Kidwai Nagar, Kanpur (U.P.)	Tailoring	2 Yrs.	VIII		Certificate	Yes				April	25
		Hind embroidery	"	"		"	"				"	25
		Machine embroidery	"	"		"	"				"	25
2.	Amar Mahila Shilp Kala Kendra 109/405, Nehru Nagar, Kanpur, U.P.	Tailoring	1 Yr.	"		Certificate	No.		5.00 p.m.		..	..
		Embroidery	"	"		"	"		5.00 p.m.		..	..
3.	Acharya Narander Dev Municipal Committee, Womens College, Harsh Nagar, Kanpur	M.A. English	2 Yrs.	B.A.		Post-Graduate	Yes		19.00 p.m.		July	50
		M.A. Hindi	"	"		"	"		"		"	50
		M.A. Sanskrit	"	"		"	"		"		"	60
		M.A. Art	"	"		"	"		"		"	15
		M.A. Psychology	"	"		"	"		"		"	100
		M.A. Economics	"	"		"	"		"		"	50
		M.A. History	"	"		"	"		"		"	25
		M.A. Political Science	"	"		"	"		"		"	50
		M.A. Sociology	"	"		"	"		"		"	100
		M.Sc. Botany	"	"	B.Sc.		"	"		23.00 p.m.		"	50
4.	Aghnihotri Type School, Kurswan, Kanpur, U.P.	M.Ed.	1 yr.	B.A.		Graduate	Yes		29.00 p.m.		"	250
		B.Ed.	6 months	High School		Certificate	No		25.00 p.m.		..	12
5.	Adersh Shilp Kala Kendra, Jagga Purwar, Kanpur, U.P.	Sewing	"	VIII		Certificate	No		7.00 p.m.		..	30
6.	Arun Commercial Institute, Harjendra Nagar, Kanpur	English Typing	"	High School		Certificate	No		8.00 p.m.		..	4
		Eng. Shorthand	"	"		"	"		6.00 p.m.		..	..
7.	Adersh Mahila Shilp Kala Kendra, Adersh Vikash Mandle, Ajit Ganj, Kanpur	Sewing	6 months/ 1 year	VIII		Certificate	No		"		..	25
8.	Auxiliary Midwifery Training, Shaaya Suya Manj, Kanpur	Nursing Training	2 years	"		Diploma	Yes		2.00 p.m.		March/ Sept.	80
9.	Anand Tailoring College, Krishna Nagar, G.T. Road Kanpur	Tailoring	1 year	Literate		Certificate	Yes		8 p.m.		July	25

10.	Arun Type College, 128/8D, Kidwai Nagar, Kanpur	Typing Eng. Shorthand Eng.	6 months "	Matric "	Certificate "	Yes "	8 p.m. 10 p.m.	..	105 20
11.	A.M.H. and Duffrin Hospital Parade, Kanpur	Midwifery	3 yrs.	High School	Diploma	Yes	..	August	158
12.	Nagar Mahapalika, Acharya Narendra Deo Degree College (Women), Kanpur	B.Sc.	2 yrs.	Intermediate	Graduate		19 p.m.	July	149
13.	Bharat Type-writer Institute, Karachi Khanna, Kanpur	Typing Eng.	6 months	High School	Certificate	No	7 p.m.	--	10
14.	B.S. Kalara & Co., 59141 Barinana Road, Kanpur	Chartered Accountant	4 yrs.	B.Com.	Certificate	Yes	--	..	10
15.	B.N. Chaturvedi & Co., 24/67 Birhana Rd., Kanpur	Chartered Accountant	4 yrs.	Graduate	Certificate	Yes	--	--	7
16.	Bindu Type Institute, Harrindra Nagar, Kanpur, U.P.	English Typing	6 months	VIII	Certificate	No	6 p.m.	--	6
17.	Bhartiya Sangit Kala Mandir, 1281 M. Block, Kidwai Nagar, Kanpur	Music	1 year	Literate	Certificate		6.50 p.m.	..	14
18.	Babu Mahila Shilp Kala Kender, 2/3, Bagum Purwa, Ajitganj No. 2, Kanpur-23	Sewing Embroidery	6 mon. 6 mon.	Literate Literate	Certificate "		2 p.m. 2 p.m.	.. ..	20 9
19.	Vajpai Typing College, 104/278, P. Road, Kanpur	Hindi & English Typing Shorthand	6 mon. 6 mon.	High School "	Certificate "	No "	7 p.m. 8 p.m.	.. ..	10/10 10
20.	Bombay Motor Driving School, Near Vivek taki, Vivek Buldg., Kanpur	Motor Driving Motor Car Driving	3 mon. 2 mon.	Nil Nil	Certificate "	" "	340 p.m. 290 p.m.	.. ..	60 60
21.	Bhartiya Vidyalaya Tailoring Institute, 54, Naya Ganj, Kanpur	Tailoring Tailoring	1 year 2 years	Literate "	Certificate "	Yes "	6.50 p.m. 5.20 p.m.	July "	50 50
22.	Berhwa Nand Degree College, D. Mal, Kanpur	B.Sc. Maths B.Sc. Physics B.Sc. Zoology B.Sc. Botany L.L.B.-I L.L.B.-II B.Sc. Chemistry	2 yrs. " " 1 yr. 3 yrs. 2 yrs. 2 yrs.	Inter " " " Graduate " " Inter	Graduate " " " " " "	Yes " " " " " "	22.50 p.m. " 20.25 p.m. " " 20.10 p.m. 20.25 p.m.	.. .. .. .. .. .. ..	70 60 200 200 20 40 100
23.	Berhwa Nand Degree College, Kanpur	B.Sc. (Phy. Chy. & Maths) B.Sc. (Phy. Zoo- logy, Botany) L.L.B.	2 yrs. 2 yrs. 3 yrs.	Inter " Graduate	Graduate " "		19.00 p.m. 19.00 p.m. 20.00 p.m.	July	239 400 280

Appendix X—Contd.

1	2	3	4	5	6	7	8	9	10	11	12	13
24.	C.L. Kandria & Co., 58/53, Brihana Rd., Kanpur	Chartered Accountant	4 yrs.	B.A.		Certificate	—		—		—	2
25.	Central College of Management, 9/63, Arya Nagar, Kanpur	Diploma in Business Mngt.	1 yr.	B.A.		Diploma	Yes		67 annual		July/Aug.	15
		Dip. in Marke- ting Mngt.	1 yr.	„		„	„		67 „		„	15
		Dip. in Com- pany Mngt.	2½ yrs.	„		„	„		100 per		Oct.	15
26.	Raj Kiya Diksha Vidiyalaya, Narval, Kanpur	B.T.C.	1 yr.	High School 1st Cl.		Certificate	Yes		Year		August	150
				Inter IIInd Class								
				Graduate 2nd Class								
27.	Christ Church College, The Mall, Kanpur	B.Sc.	2 yrs.	Inter II		Graduate level	Yes		270 annual		July	300
		M.Sc. Chemistry	2 yrs.	B.Sc.		Post Graduate & Doctorate level	„		327 annual		„	24
		Physics	2 yrs.	B.Sc.		„	„		327 annual		„	10
		Botany	„	„		„	„		327 annual		„	10
		Zoology	„	„		„	„		327 annual		„	6
		Maths	„	„		„	„		255 annual		„	50
		M.A.										
		Hindi	„	B.A.		„	„		255 annual		„	60
		English	„	„		„	„		255 annual		„	60
		Economics	„	„		„	Post Graduate & Doctorate level	„		255 annual		„	120
28.	C. Vedara (Principal) Type Centre, Naya Chowk, 40/67, Kanpur	Sociology	„	„		„	„		255 annual			60
		Pol. Sc.	„	„		„	„		255 annual			60
28.	C. Vedara (Principal) Type Centre, Naya Chowk, 40/67, Kanpur	Hindi typing	6 mon.	High School		Certificate			9 p.m.			25
		English typing	„	„		„			7.50 p.m.			25
29.	Principal Central Textile Institute, Gwaldhi Souterganj, Kanpur	Textile Technology	3 yrs.	Matric II Cl.		Diploma			120 annual		July	20
		Textile Chemistry	„	„		„			120 annual		„	10
		Textile Technology	4 yrs.	Inter II Div.		Graduate level			180 annual		„	20
		Textile Chemistry	„	„		„			180 annual		„	10
30.	Central Trg. Institute for Instructors, Govind Nagar, Kanpur, U.P.	Electrician	1 yr.	Matric		Certificate	Yes		15 p.m.		August	20
		Fitter	„	„		Diploma or Certificate	„		10 p.m.		„	40
		Machinist	„	„		„	„				„	32

	Motor Mech.	1 yr.	5 years experience including time spent in trg.	Certificate	Yes	..	August	20	
	Turner Wiremen	"	"	"	"	..	"	32	
	Welder	"	"	"	"	..	"	20	
	Cutting & Tailoring	"	"	"	"	..	"	16	
	Weaving	"	"	"	"	..	"	20	
	Printing	"	"	"	"	..	"	20	
	Printing	"	"	"	"	..	"	36	
31.	Central Trg. Institute for Instructor (Model Trg. Institute) Govind Nagar, Kanpur-12	Welder	1 year	VIII	Certificate	..	Free	August	34
		Motor Mech.	"	"	"	..	"	"	16
		Cutting & Tailoring	"	"	"	..	"	"	16
		Electrician	2 yrs.	High School with Science & Maths.	"	..	"	"	32
		Fitter	"	VIII	"	..	"	"	32
		Machinist (Composit)	"	"	"	..	"	"	12
		Turner	"	"	"	..	"	"	12
		Wiremen	"	"	"	..	"	"	16
		Tool & Die Maker	"	High School with Science	"	..	"	"	32
		Mechanic Radio & Television	"	"	"	..	"	"	16
32.	Principal, College of Nursing, G.S.V.M. Medical College Bldg., Kanpur	Post Basic Degree in Nursing	2 yrs.	Inter Diploma in Nursing & Midwifery 3 yrs. experience as Staff Nurse	"	Yes	—	July	12
33.	Narikala Kendra, Gandhi Nagar, Fl. No. 106/67 Gandhi Nagar, Kanpur	Tailoring	2 yrs.	VIII	"	"	10.50 p.m.	"	40
34.	Daya Nand Women's Trg. College, Mekrobertganj, Kanpur	B.Ed.	1 yr.	Graduate	Graduate level	Yes	18 p.m.	July/August	240
		M.Ed.	"	B.A./Ed/Lt. M.A./B.Ed./ Lt./B.T.	Post Graduate Doctorate level	"	20 p.m.	"	24
		M.Ed.	2 yrs.	"	"	"	"	"	14
35.	District Manager, Telephone, M.G. Road, Kanpur	Telephone Operator	1 yr.	Depends upon candidate	Certificate	Yes	40 p.m.	March	20
36.	Pilip Type & Shorthand Institute, 24/8-158, Govind Nagar, Kanpur	Hindi Type	6 mon.	H.S.	Certificate	Yes	8 p.m.	At any time	25
		Eng. Type Shorthand (English)	1 yr.	"	"	"	"	"	100
		Shorthand (Hindi)	1 yr.	"	"	"	"	"	25

Appendix X—Contd.

1	2	3	4	5	6	7	8	9	10	11	12	13	
37.	Das Type & Shorthand College (Reg.), Govind Nagar, Kanpur, U.P. Block No. 7 (Opp. Vid-yarthi Market)	Hindi Type	6 mon.	H.S.		Certificate	Yes		6 p.m.		At any time	10	
		Er.g. Type	4 mon.	"		"	"	"	5 p.m.		"	15	
		Shorthand (English)	1 yr.	"		"	"	"	6 p.m.		"	5	
		Shorthand (Hindi)	"	"		"	"	"	6 p.m.		"	2	
38.	D.B.S. College, Govind Nagar, Kanpur, U.P.	B.Ed.	1 yr.	Graduate		Graduate level	"		27 p.m.		August	480	
		M.A. English	2 yrs.	"		Post Graduate level	"		20 p.m.		July	Unlimited	
		M.A. Hindi	"	"		"	"	"	20 p.m.		"	"	
		M.A. Eco.	"	"		"	"	"	20 p.m.		"	"	
		M.A. Pol. Sc.	"	"		"	"	"	20 p.m.		"	"	
		M.A. Sociology	"	"		"	"	"	20 p.m.		"	"	
		M.Sc. Phy.	"	"		"	"	"	25 p.m.		"	22	
		M.Sc. Chem.	"	"		"	"	"	25 p.m.		"	45	
		M.Sc. Maths.	"	"		"	"	"	20 p.m.		"	"	
		M.A. History	"	"		"	Post Graduate & Doc. level	"		20 p.m.		"	"
		M.Sc. Zoology	"	"		"	"	"		25 p.m.		"	22
		M.Sc. Botany	"	"		"	"	"		25 p.m.		"	22
		39.	Daya Nand College of Law, Civil Line, Kanpur	L.L.B. Ist.	3 yrs.	Graduate		Graduate level	Yes		20.65 p.m.		July	150
L.L.B. 2nd	2 yrs.			"		"	"		29.40 p.m.		"	130	
40.	DAU College, Civil Line, Kanpur	M.A. English	2 yrs.	B.A.		Post Graduate level	Yes		20.10 p.m.		July	40	
		M.A. Hindi	"	"		"	"	"	"		"	100	
		M.A. Sanskrit	"	"		"	"	"	"		"	50	
		M.A. Math.	"	B.Sc.		"	"	"	27.30 p.m.		"	10	
		M.A. Philosophy	"	B.A.		"	"	"	"		"	20	
		M.A. History	"	"		"	"	"	"		"	60	
		M.A. History Ancient	"	"		"	"	"	"		"	60	
		M.A. Geography	"	"		"	"	"	"		"	200	
		M.A. Pol. Science	"	B.A.		"	"	"	20.35 p.m.		"	150	
		M.A. Economics	"	"		"	"	"	"		"	300	
		M.A. Sociology	"	"		"	"	"	"		"	150	
		M.A. Physiology	"	"		"	"	"	"		"	60	
		Drawing	"	"		"	"	"	"		"	70	
		M.Sc. Chemistry	"	B.Sc.		"	"	"	39.30 p.m.		"	200	
		Zoology	"	"		"	"	"	"		"	350	
Statistics	"	B.A./B.Sc.		"	"	"	20.35 p.m.		"	80			
Botany	"	B.Sc.		"	"	"	39.30 p.m.		"	200			
M.Com.	"	B.Com.		"	"	"	35.40 p.m.		"	500			
41.	Daya Nand Girls College, Civil Line, Kanpur	Hindi	2 yrs.	B.A.		Post Graduate & Doctorate level	"		15 p.m.		July	16	

	English	2 yrs.	B.A.		Post Graduate & Doctorate level		15 p.m.	July	13	
	History	"	"		"	"	15 p.m.	"	15	
	Pol. Science	"	"		"	"	15 p.m.	"	22	
	Physics	"	"		"	"	20.60 p.m.	"	26	
	Economics	"	"		"	"	15.64 p.m.	"	30	
	Geography	"	"		"	"	15.64 p.m.	"	28	
	Drawing & Painting	"	"		"	"	15.64 p.m.	"	16	
	Music	"	"		"	"	15.64 p.m.	"	20	
	Sanskrit	"	"		"	"	15.64 p.m.	"	19	
	Psychology	"	"		"	"	15.64 p.m.	"	24	
	M.Sc. Chemistry	2 yrs.	B.Sc.		Post Graduate & Doctorate		20.60 p.m.	July	30	
	M.Sc. Zoology	"	"		"	"	20.60 p.m.	"	25	
	M.Sc. Botany	"	"		"	"	20.60 p.m.	"	20	
42.	L.T. College, D.A.V. College Compound, Civil Line, Kanpur, Ph. 61049	L.T.	1 yr.	Graduate	Graduate level	Yes	20 p.m.	July	280	
43.	Dayanad Girls Degree College, Kanpur	B.Sc.	2 yrs.	Intermediate	Graduate level		20.50 p.m.	July	41	
44.	D.A.V. College, Kanpur	B.Com. B.Sc.	2 yrs. "	" "	" "		16 p.m. 20 p.m.	" "	769 705*	
45.	Electronics Complex Homoeopathic College & Cancer Hospital, 125/38 'K' Block, Govind Nagar, Kanpur	Electronic Complex	1 yr.	M.A./M.Sc.	Certificate level		15 p.m.	"	15	
		Homoeopathic	1½ yrs	B.A./B.Sc.	"		"	"	15	
		Correspondence course	11 yrs. 21 yrs.	Inter High School	" "		" "	" "	20 20	
46.	Govt. Labour Welfare Centre, Jarib Ki Chawki, Kanpur	Tailoring & Sewing	1 yr.	"	Certificate level	Yes	"	"	30	
		Embroidery	6 month	"	"	"	"	"	10	
47.	Gupta Type Institute, 118/574, Kushel Puri, Kanpur	Hindi	6 months	High School	"	"	6 p.m.	"	6	
		English	8 months	"	"	"	6 p.m.	"	17	
		Shorthand Hindi	1 yr.	"	"	"	8 p.m.	"		
48.	Govt. Labour Welfare Centre, Baboupurwa, Kanpur	Tailoring	1 yr.	VIII	Certificate	Yes	"	Any time	20	
		Hand Embroidery	6 months	"	"	"	"	"	7	
49.	Govt. Polytechnic, Kalyanpur, Kanpur	Civil	3 yrs.	High School Passed at least 40% marks	On the basis of merit	Yes	Kanpur Unit	15 p.m.	July	60
		Electrical	3 yrs.	"	"	"	"	"	120	
		Mech.	3 yrs.	"	"	"	"	"	120	
		Chemical	4 yrs.	"	"	"	"	"	10	
		Electronics	3 yrs.	"	Diploma	"	"	"	30	
		Post Diploma in Instrument	1 yr.	After Dip. in Elec. & Mech.	"	"	"	"	10	

*appeared in B.Sc. I

Appendix X—Contd.

1	2	3	4	5	6	7	8	9	10	11	12	13
50.	Principal, Govt. Normal School, Pukhrayan, Kanpur	B.T.C.	1 yr.	High School	..	Certificate	Yes	Kanpur	..	..	20 p.m. July	100
51.	Govt. Normal School, Vilhoor, Kanpur	B.T.C.	1 yr.	High School	Merit	Certificate	Yes	Kanpur	19.50 p.m.	20 p.m. Gen. Cand. for 8 mon. 27 p.m. to Sc. for 8 mon.	July	100
52.	B.P.M.G. Inter College Mandhna, (Trg. Section)	B.T.C.	1 yr.	High School	Merit	Certificate	Yes	Kanpur	—	All S.C. 27/- p.m. For 10 mon. Merit	July	60
53.	Gyan Bhartiya Inter College, Birhana Road, Kanpur	B.T.C.	1 yr.	High School	Merit	Certificate	Yes	Kanpur	14.75 p.m.	20 p.m.	July	60
54.	Govt. Community Cawnirs Centre, West Cantt. Bldgs., Mall Road, Kanpur	Fruit Preservation	R-10 days U-15 days	VIII		Certificate	Yes	Kanpur	2.50 for Females 5 for Gents	—	Anytime	20
55.	Principal, G.S.V.M. Medical College, Kanpur	Lab. Technician	1 yr.	H. Sec.	Secy. State Medical Faculty	Certificate	Yes	Kanpur	..	30 p.m.	May-June	40
		Pharmacist	1 yr.	H. Sc.	„	Diploma	Yes	Kanpur	—	40 p.m. for Male 60 p.m. Female	August	120
		M.B.B.S.	4½ yrs.	Inter with Biology or equivalent examn.	Written Test	Graduate	Yes	Kanpur	219	On merit basis for 4½ yrs.	August	190
		M.D. in Medicine	2 yrs.	MBBS Degree from Recognised University	Merit basis	Post Graduate	Yes	Kanpur	Nil	From Govt. of India	January & August	10
		Physiology	2 yrs.	One yr. House Job done from Recognised hospital after permanent Regd. in cases of clinical	„	„	„	„	„	„	„	2
		Pharmacology	2 yrs.	„	„	„	„	„	„	„	„	2
		Pathology	2 yrs.	„	„	„	„	„	„	„	„	5
		Radiology	„	„	„	„	„	„	„	„	„	3
		Tuberculosis	„	„	„	„	„	„	„	„	„	4
		Social & Preventive medicine	„	„	„	„	„	„	„	„	„	4
		Paediatrician	„	„	„	„	„	„	„	„	„	4
		Anaesthesiology	„	„	„	„	„	„	„	„	„	3

		<i>M.S. in Surgery</i>	2 yrs.	"	"	"	"	"	"	"	12	
		Anatomy	"	"	"	"	"	"	"	"	4	
		Orthopaedist	"	"	"	"	"	"	"	"	3	
		Ophthalmology	"	"	"	"	"	"	"	"	4	
		Obst. gynecology	"	"	"	"	"	"	"	"	4	
		E.N.T.	"	"	"	"	"	"	"	"	3	
		<i>D.M. in</i>										
		Cardiology	"	"	"	Doctorate	"	"		March & Oct.	3	
		Dip. in										
		Laryngology & Otolology	1 yr.	One year house job done from Recognised hospital after permanent Regd. in cases of clinical	Merit basis	Post Graduate	Yes	Kanpur	Rs. 300 per yr. for Graduate of U.P. medical college & 400 per yr. for Graduate outside U.P.	Nil	January	6
		Gynecology & obsteting	1 yr.	"	"	"	"	"	"	"	"	6
		Medical Radiology and Electricity	1 yr.	"	"	"	"	"	"	"	"	6
		Ophthalmic and Medicine	1 yr.	"	"	"	"	"	"	"	"	6
		Surgery	1 yr.	"	"	"	"	"	"	"	"	6
		Clinical Pathology	1 yr.	"	"	"	"	"	"	"	"	6
		Orthopaedic surgery	1 yr.	"	"	"	"	"	"	"	"	6
		Anaesthesiology	1 yr.	"	"	"	"	"	"	"	"	6
		Child Health	1 yr.	"	"	"	"	"	"	"	"	6
		Tuberculosis and Chest Disease	1 yr.	"	"	"	"	"	"	"	"	6
56.	Govt. Leather Instt., Gwaltohi, Kanpur	Leather working High School Technical Diploma in Leather Tech. Training Foot wear Technology	2 yrs. 2 yrs. 2 yr. 2 yr.	VIII " High School Sc. Maths. "	Direct " Direct "	Certificate " Diploma "	Yes " Yes "	Kanpur " Kanpur "	Nil " 3 p.m. "	Rs. 6, 16 " 30 p.m. "	August " August "	20 20 10 20
57.	Govt. Normal Girls School, Pandu Nagar, Kanpur	Basic Trg. B.T.C.	1 yr.	High School	Advisory Committee	Certificate	Yes	Kanpur	Nil	30 p.m.	July	100
58.	Halim Muslim Degree College, Kanpur	B.Ed. M.A. (Urdu) M.A. (Social Study)	1 yr. 2 yr. 2 yr.	B.A. B.A. B.A.		B.Ed. M.A. M.A.	Yes Yes Yes	Kanpur " "	27 20 20		July July July	165 60 60
59.	New Premier School of Commerce, Ram Mohan Hata, Shiwala Road, Kanpur	Type (Hindi) (English)	$\frac{1}{2}$ yr. $\frac{1}{2}$ yr.	VII VII		Certificate "	Yes "		5 6		Anytime "	50 50
60.	Hind Training College, 18/47, The Mall, Kanpur	Tailoring	$\frac{1}{2}$ yr. & 1 yr.	Vth		Certificate	Yes		9		Anytime	120

Appendix X—Contd.

1	2	3	4	5	6	7	8	9	10	11	12	13
61.	Hind Commercial College, 59/2, Birhana Rd., Kanpur	Type (Hindi & Eng.)	½ yr.	IX		Certificate	Yes	..	8	..	Anytime	250
		Stenographer	8 mon.	H.S.		"	"	..	8	..	"	200 (Hindi)
		Hindi & English										300 (English)
62.	Hanuman Motor Driving Trg. School, 133/225, M Kidwai Nagar, Kanpur	Motor Driving Heavy Light	3 mon.			"	Yes	..	440 340		"	200
63.	H.B.T.I. Nawabganj, Kanpur	B.Sc. Engg. B.Sc. Chem. Engg. Elec. Engg. Mech. Engg. Civil Engg.	4 yr.	Inter B.Sc. Physics	Direct	B.Sc.	Yes	Kanpur	240	75 p.m. for 10 months to 25% of the endorse- ment in order of merit	July	40
			"	"	"	"	"	Kanpur	240		July	37
			"	"	"	"	"	"	"		"	30
			"	"	"	"	"	"	"		"	20
		B.Sc. Tech. Bio-Chemistry Food Oil Paints Plastic	3 yrs. 3 yrs. 3 yrs. 3 yrs.	Inter Sc.	Direct	B.Sc.	Yes	Kanpur	240 per yr.	75 p.m. for 10 mon. to 25% of the end- orsement in order of merit	July	30
			"	"	"	"	"	"	"		"	15
			"	"	"	"	"	"	"		"	15
			"	"	"	"	"	"	"		"	15
		M.Sc. Eng. Chem. Plastic Chem. Design	2 yrs. 2 yrs. 2 yrs.	B.Sc. Eng.	Direct	M.Sc.	Yes	Kanpur	250	250 p.m. to 5 students in order of merit	July	10
			"	"	"	"	"	"	"		"	10
			"	"	"	"	"	"	"		"	10
		Electrical Mech. Industrial Maths	3 yrs. 2 yrs.	B.Sc. Eng. B.Sc. Maths/ Eco. Eng. Tech.	"	"	"	"	250 250	Nil	July July	10 10
		M.Sc. Tech. Bio-Chem. Food Oil Paints Plastic	2 yrs. " " " " "	B.Sc. Tech.	"	M.Sc.	"	"	"	250 p.m.	July	5 5 5 5 5
			"	"	"	"	"	"	"		"	5
			"	"	"	"	"	"	"		"	5
			"	"	"	"	"	"	"		"	5
		Doctorate Physics	3 yrs.	M.Sc.	Direct	Doctorate	Yes		25 p.m.	250 to 2 students	July	8
			"	"	"	"	"		25 p.m.	250 p.m. to 3	"	4
		Chemistry Plastic	"	M.Sc. Chem.	"	"	"		"	400 p.m. to one	"	14
			"	"	"	"	"		250 per yr.	250 to two	"	2
		Maths	2-3 yrs.	M.Sc. Maths	"	"	"			400 p.m. to one	"	22
		Oil Paints	"	"	"	"	"				"	2
		Chemistry Engg. Food-Biochem.	"	"	"	"	"				"	2

APPENDIX X—Contd.

1	2	3	4	5	6	7	8	9	10	11	12	13
		Hand Compositor & Proof Reading	1 yr.	J.H.S.	By Advisory Committee on merit basis	Certificate	Yes	Kanpur	Free	25/-p.m. to all	August	16
		Printing machine Out.		"	"	"	"	"	"	"	"	16
		Stenography (Hindi)	"	H.S.	"	"	"	"	"	25 p.m. to 33%	"	32
		Stenography (English)	"	"	"	"	"	"	"	"	"	32
		Vocational Girls Cutting & Tailoring	1 yr.	J.H.S.	By Advisory Committee on merit basis	Certificate	Yes	Kanpur	Free	25 p.m. to 33%	August	
		Embroidery		"	"	"	"	"	"	"	"	48
		Knitting Wool (Hand Machine)	"	"	"	"	"	"	"	"	"	32
		Stenography (Hindi)	"	"	"	"	"	"	"	25 p.m. to all	"	16
		Stenography (English)	"	"	"	"	"	"	"	25 p.m. to 33%	"	32
		"	"	H.S.	"	"	"	"	"	"	"	32
		"	"	"	"	"	"	"	"	"	"	32
66.	Indian Institute of Technology, Kalyanpur, Kanpur	B. Tech. Degree Aeronautical Engg.	5 yrs.	H.S. or Inter	To pass Written Test & Interview	B.Tech.	"	"	175 p.m.	75 p.m. to 25% Candi.	July	10
		Chem. Engg.	"	"	"	"	"	"	"	"	"	60
		Civil Engg.	"	"	"	"	"	"	"	"	"	10
		Mech. Engg.	"	"	"	"	"	"	"	"	"	65
		Electrical Engg.	"	"	"	"	"	"	"	"	"	75
		Metallurgical Engg.	"	"	"	"	"	"	"	"	"	35
		M. Tech. Degree Aeronautical Engg.	2 yrs.	M.Sc.	On the basis of Test & merits	M.Tech.	Yes	Kanpur	300 p.m.	250	July	19
		Chemical Engg.	"	B.Sc. Engg.	"	"	"	"	"	"	"	26
		Civil Engg.	"	B.Tech.	"	"	"	"	"	"	"	17
		Electric	"	"	"	"	"	"	"	"	"	41
		Mechanic	"	"	"	"	"	"	"	"	"	39
		Materiological	"	"	"	"	"	"	"	"	"	22
		Phd. in Engineering	"	"	"	"	"	"	"	"	"	170
		Aeronautical	"	"	"	"	"	"	"	"	"	10
		Chemical	"	"	"	"	"	"	"	"	"	12
		Civil	"	"	"	"	"	"	"	"	"	6
		Electrician	3 yrs.	"	On the basis of tests and merit	Ph. D.	Yes	Kanpur	Rs. 300	Rs. 400	July	

Appendix X--Contd.

1	2	3	4	5	6	7	8	9	10	11	12	13
75.	Tiwari Tailoring College, 109/391, Jawahar Nagar, Kanpur	Tailoring & Cutting	1 yr. 6 months	V V	.. ..	Certificate ..	Yes. ..	.. ..	7.50 ..	Nil. ..	Any day ..	30 20
76.	Janta Vikas Mandal, Mahila Tailoring & Cutting Training Centre. Suzat Ganj, Kanpur.	Tailoring Cutting	6 months 6 months	VHI VIII	.. ..	Certificate ..	Yes Yes	.. ..	60.00 60.00	Nil Nil	Any day Any Day	15 5
77.	Krishna Motor College, 128/526, Kidwai Nagar, Kanpur.	Motor Driving	3 months	..	..	Certificate	Yes	..	400.00	..	Any time	100
78.	Kanpur Tailoring College, Ghatampur Main Road, Kanpur.	Tailoring	1 year	VIII	Direct	Certificate	No	..	5.00	..	Any time	25
79.	Kanpur Commercial College, 125/1, L-Block, Govind Nagar, Kanpur.	Typing Hindi Typing English	½ yr. ..	H.S. H.S.	.. ..	Certificate ..	No Yes	.. ..	8.00 7.00	.. ..	Any time ..	60 60
80.	Kanpur Homeopathic Medical College, G.N.K. Building, Civil Line, Kanpur.	B.M.S.	4 years	Intermediate	Direct	Diploma	Yes	Kanpur	300 per year.	..	August	200
81.	L.L.R. Associated Hospitals, Kanpur.	General Nursing	3 yrs.	H.S.	Direct	Diploma	Yes	Kanpur	100 fixed	..	September	67
82.	Lakshmi Tailoring School, 7/54, Tilak Nagar, Kanpur.	Tailoring Cutting	6 months 6 months	Educated Educated	Direct ..	Certificate ..	No No	.. ..	8.00 8.00	.. ..	Any time ..	8 8
83.	Misra Institute of Commerce 104-A/246 P. Road, Kanpur.	Hindi Typing English Typing Shorthand H'E	3 months " 1 year	H.S. " "	Direct " "	Certificate " "	Yes " "	Kanpur " "	6.00 5.50 7.00	.. .. ..	Any time " "	34 34 18
84.	Mahila Shilp Kala Kendra, Arya Nagar, Kanpur.	Tailoring Machine Embroidery Hand Leather Work (Pad, Cushion)	6 months " " "	.. .. .. "	Direct " " "	Certificate " " "	No " " "	.. .. .. "	100.00 " " "	.. .. .. "	May " " "	not fixed " " "
85.	M.K. Shilp Kala Vidyalaya, 95/46, Hasi Road, Kanpur.	Embroidery	6 months	H.S.	Direct	Certificate	Yes	Kanpur	9.00	..	Any time	30
86.	Mahila Mahavidyalaya Degree College, Kidwai Nagar, Kanpur.	B.Ed.	1 year.	B.A.	Interview	B.Ed.	Yes	Kanpur	7.00	Scholarship for SC only	July	160
87.	Mishra Commercial College, P. Road, Kanpur.	Type Hindi English Shorthand	½ year. 1 Year.	H.S. H.S.	Direct "	Certificate "	Yes "	Kanpur "	5.00 6.00	.. ..	Any time "	30 15
88.	Mahila Shilp Kala Kendra, Block No.79 Labour Colony; Babu Purwa, Kanpur.	Tailoring Embroidery	1 year. 1 yr.	.. ..	.. ..	Certificate "	No No	.. ..	5.00 5.00	.. ..	" "	16 19

89.	Manoj Commercial Institute, 65 Kaji Khera, Har Jendra Nagar, Lal Bangla, Kanpur	Hindi Typing	7 months	H.S.	Direct	Certificate	No	..	7-00	..	Any time	5
		English Typing	"	"	"	"	"	..	6-00	..	..	7
		Hindi Shorthand	8 months	"	"	"	"	..	6-00	..	..	..
		English Short-hand	8 months	"	"	"	"	..	6-00	..	..	..
90.	Mahila Shilp Kala Kendra, 106/61, Gandhi Chowk (Prem Nagar) Kanpur.	Tailoring	1 year	..	Direct	Certificate	Yes	Kanpur	4-00	..	Any time	100
		Embroidery	6 months	..	Direct	Certificate	"	"	"	"	"	80
91.	M. Ashraf & Co., Chartered Accountants, 33/130-A, Mool Ganj Kanpur.	Chartered Accountants	3/4 years	Graduate	On merit	C.A.	Yes	Kanpur	50-00	..	Any time	4
92.	Nari Kala Kendra Gumti No. 5, Kanpur.	Tailoring	1 year	J.H.S.	Direct	Certificate	Yes	Kanpur	7-50	..	April	15
		Embroidery	"	"	"	"	"	"	"	"	"	15
93.	Nav Bharat Commercial Type College, 26/103, Birhana Road, Kanpur.	English Typing	6 months	H.S.	Direct	Certificate	Yes	Kanpur	7-00	Nil	Any time	10
94.	Navneen Training College, 133/834, M-Block Kidwai Nagar, Kanpur.	Men Tailoring	1 year	VIII	Direct	Certificate	No	..	5	only for S.C. 200	July	58
		Women Tailoring Embroidery	6 months	VIII	Direct	"	"	..	4	only for SC Rs. 200	July	26
95.	Nehru Vikas Mandal, 133/767, M-Block, Naya Purwan Kidwai Nagar, Kanpur.	Tailoring	1 year	..	Direct	Certificate	Yes	Kanpur	2-00	Nil	Any day	18
96.	Nav Bharat Commercial College, 133/131, M-Block, Kidwai Nagar, Kanpur.	English Type	9 Months	H.S.	Direct	Certificate	Yes	..	8-00	..	Any Time	60
		Hindi Type	9 months	"	"	"	"	..	"	..	"	20
		English Short-hand	1 year	"	"	"	"	..	10-00	..	"	16
		Hindi Shorthand	"	"	"	"	"	..	"	..	"	10
97.	New Diamond Shilp Kala Kendra, Jaggai Purwa, Kanpur.	Tailoring	6 months	VIII	Direct	Certificate	No	..	3-50	..	Any time	40
98.	Narain Type Institute 89/209, Dalel Purwa, Kanpur.	Hindi Typing	6 months	VIII	Direct	Certificate	No	..	6-00	..	Any Time	1
		English Typing	6 months	..	..	"	"	..	5-00	..	"	4
99.	Narain Tailoring School, 132/726, Munshi Purwa, Dak Khana Road, Kanpur.	Tailoring	1 year	V	Direct	Certificate	No	..	10-00	..	July	30
		Embroidery	"	V	"	"	"	..	"	..	"	10
100.	New Commercial Institute, Kaushal Pun, Kanpur.	Hindi Type	6 months	H.S.	Direct	Certificate	No	..	6-00	..	Any time	8
		English Typing	6 months	"	"	"	"	..	5-00	..	..	20
101.	Nari Kala Kendra Block No. 12, Govind Nagar, Kanpur.	Tailoring & Cutting	1 year	H.S.	Direct	Certificate	Yes	..	8-00	..	Any time	12
		Embroidery	6 months	"	"	"	"	..	"	..	"	4
102.	Shyam Shiksha Kala Kendra, 120/165, Lajpat Nagar, Kanpur.	Tailoring & Cutting Embroidery	1 year	H.S.	Direct	Certificate	Yes	..	8-00	..	Any time	15
			"	"	"	"	..	"	"	"	"	5

Appendix X—Contd.

1	2	3	4	5	6	7	8	9	10	11	12	13		
103.	National Music School Gandhi Chowk, Kanpur-12	Music Vocal	8 years	VI	Vocal Test Certificate	Yes	..	Rs. 6 to 20 p.m.	..	July	100			
		Music Instrumental	..	..	..	..	..	..	..	..	75	
		Music Dance	..	..	..	..	..	..	..	..	100	
104.	Omar Vaishya Shilp Kala Kendra, 58, Birhana Road, Kanpur.	Tailoring	1 year	VI	..	Certificate	No	..	6	..	Any time	20		
105.	Omar Vaishya Technical Institute, 59, Birhana Road, Kanpur.	Radio Mechanic	6 months	I.S.G.	..	Certificate	No	..	Rs. 20 p.m.	..	Any time	15		
		Transistor Mech.	1 yr.	H.S.	..	..	..	..	Rs. 15 p.m.	..	..	20
106.	Omar Vaishya Fine Art School, 531, Birhana Road, Kanpur.	Music	1 yr.	..	Direct	Certificate	No	..	Rs. 6.50 p.m.	..	July	200		
107.	S. National Sugar Institute, Kalyanpur, Kanpur (UP)	Sugar. Engg.	1 yr.	Diploma in Engg.	on Merit	Certificate	Yes	Kanpur	Rs. 710 per year	..	July	6		
		Sugar Boiling	6 months	Matric*	..	..	..	..	Rs. 493 per year	..	..	34
		(Physics, Chemistry, Maths with one year experience).		Khandasari Supervisor	9 Months	H.S.	Rr. 628 per year	7	
		*(with Science & Mathematics)		Khandasari Karigar	1 yr	VIII	On merit	Certificate	Yes	Kanpur	Under conside- ration.	..	November	..
		Fellowship of National Sugar Institute	3 yrs.	Associated course in ANSI in Sugaringg.	..	Diploma	Rs. 540 Iyr. Rs. 264 II yr. Rs. 264 III yr.	..	July	5	
		(a) Sugar Tech. (b) Sugar in Chem. (c) Alcohol Tech. (d) Sugar Engg.	} 3 Years	4
		Associative of NSI in sugar Technology		2½ yrs.	B.Sc. 45% marks	Written Test and on merit basis.	Rs. 600 for 6 months Rs. 271 for 6 months Rs. 324 for 6 months Rs. 261 for 6 months Rs. 324 for 6 months Rs. 600 for 6 months Rs. 324 for 6 months	..	July	52
		Associative of NSI in Sugar Engg.		1 year	Degree in Mech. or Elec. Engg.	Rs. 600 for 6 months Rs. 324 for 6 months	13
		Diploma in In- dustrial Fer- mentation in Al- cohol Technology		..	N.S.I. Sugar Tech. or B.Sc. with experi- ence in dis- tillery.	Rs. 600 for 6months Rs. 261 for 6 months	Nil.	..	20

		<i>Research for Ph.D.</i>												
		Physical Chemistry	3 yrs.								July		1	
		Organic Chemistry	"								"		1	
		Bio-Chemistry	"								"		1	
		Agricultural Chem.	"								"		1	
108.	Embroidery Centre Shop No. 7,8, Kotwali Market. Kanpur.	Embroidery (with machine)	6 months	VIII	..	Certificate	Yes	Kanpur	Rs. 8 p.m.	Nil	Any day		6	
109.	Pandey & Co. 24/24 Karachi Khana, Kanpur.	Chartered Accountancy	4 years	B.Com. 50% marks	Merit	..	Recognised	..	..	..	Not fixed		2
110.	P.P.N. College, Kanpur.	B.Sc. (Maths)	2 years	Intermediate Science	At least III Div.	..	Recognised	..	Rs. 20 p.m.	As prescribed under rules	July		120	
		B.Sc. (Zoology)	2 years	"	"	..	"	..	Rs. 20 p.m.	"	"		180	
		B.Com.	2 years	Intermediate Commerce	"	..	"	..	Rs. 20	"	"		120	
111.	Prem Commercial Institute, 118/183, Bumga Road, Kanpur.	Typing	6 months	Matric	..	..	Unrecognised	..	Rs. 4.50	..	Not fixed		35
		Shorthand	"	"	..	..	"	..	Rs. 5.00	..	"		35
112.	Premier School of Steno Typing, Plot No. 9, Naveen Market, Pared, Kanpur.	Hindi Typing	6 months	High School	..	..	Unrecognised	..	Rs. 6.00	..	"		85
		English Typing	"	"	..	..	"	..	Rs. 6.00	..	"		85
		Hindi Shorthand	"	"	..	..	"	..	Rs. 8.00	..	"		40
		English Shorthand	"	"	..	..	"	..	Rs. 8.00	..	"		40
113.	Public Commercial Institute, St. Xaviers Bldg. Ashok Nagar, Kanpur.	Hindi Type	6 months	VIII class	..	..	Unrecognised	..	Rs. 8.00	..	..		133
		English Type	"	High School	..	..	"	..	Rs. 8.00	..	..		475
		Hindi Shorthand	"	"	..	..	"	..	Rs. 8.00	..	..		80
		English Shorthand	"	"	..	..	"	..	Rs. 8.00	..	..		80
114.	Pawan Typing Institute, 109/24, Ram Krishan Ngr., Kanpur.	Hindi Type	6 months	High School	..	..	Unrecognised.	..	Rs. 8.50	..	..		120
		English Type	"	"	..	..	"	..	Rs. 8.50	..	..		520
		Hindi Shorthand	"	"	..	..	"	..	Rs. 8.00	..	..		40
		English Shorthand	"	"	..	..	"	..	Rs. 8.00	..	..		60
115.	Pragatisheel Shilp Kala Kendra, Rail Bazar, Kanpur.	Tailoring	6 months	..	..	..	Unrecognised.	..	Rs. 5.00	..	..		40
		Kadhai	"	..	..	..	"	..	Rs. 5.00	..	..		20
116.	Parikh and Jain, 59/48 Birhana Road, Kanpur.	Chartered Accountancy	4 years	Graduation	..	..	Recognised.	..	Rs. 75.00	..	..		10

Appendix X—Contd.

1	2	3	4	5	6	7	8	9	10	11	12	13
117.	P.P.N. Post Graduate College, Kanpur.	Hindi (M.A.)	2 Years	B.A.	Application & Merit	..	..	..	Rs. 20/- (p.m.)	..	Aug.	20
		Economics (M.A.)	..	..	..	..	..	..	Rs. 20/- (p.m.)	..	..	32
		Phycology (M.A.)	..	..	..	..	..	..	20.00	..	..	34
		Geography (M.A.)	..	..	..	..	..	..	20.00	..	..	40
		Physics (M.Sc.)	..	B.Sc.	..	..	..	..	25.00	..	..	35
		Chemistry (M.Sc.)	..	B.Sc.	..	..	..	..	25.00	..	..	30
		Maths (M.Sc.)	2 years	B.Sc.	Application & Merit.	..	Recognised.	..	25.00	..	Aug.	20
118.	Ram Typing Centre 14/82, Civil Line, Kanpur.	Typing	4 Months	VIII	..	..	Unrecognised.	..	7.00	..	..	45
		Shorthand	6 Months]	Higher Sec.	..	..	..	..	10.00	..	..	15
119.	Ram Swarup Gramudyog Post-Graduate College Pukhrayan, Kanpur.	Hindi (M.A.)	2 Years	B.A.	..	..	Recognised.	..	26.00	..	July	60
142	120. Ravi Type & Shorthand Institute Bolck-7, Govind Nagar, Kanpur.	Hindi Typing	6 Months	H.S.	..	..	Unrecognised.	..	7.00	..	..	8
		English Typing	..	..	..	..	..	..	..	..	..	8
		Hindi Shorthand	1 Year	..	..	..	..	..	..	..	..	8
		English Shorthand	1 Year	..	..	..	..	..	..	..	..	8
121.	R. E. Shukla Tailoring college, 121/680, Shastry Nagar, Kanpur.	Tailoring	1 Year	..	..	..	..	..	8.00	..	..	35
122.	Rajendra Typing School 74/109, Dhankutti, Kanpur	English Typing	6 Months	VIII	..	..	Unrecognised	..	6.00	..	..	50
123.	Ram Krishan Commercial Institute, Pukhrayan, Kanpur	Hindi Typing	..	Higher Sec.	..	..	..	..	10.00	..	..	26
		English Typing	..	Inter	..	..	..	..	10.00	..	..	56
		Hindi Shorthand	1 Year	Higher Sec.	..	..	..	..	10.00	..	..	10
		English Shorthand	..	Inter	..	..	..	..	10.00	..	..	56
124.	Radio Training Centre, Pheel Khna, Kanpur.	Radio & Transister Mechanic.	6 Months	VIII	..	..	..	..	18.00	..	..	10
125.	Raj Commercial Institute Karachi Kana, Birha-na Road, Kanpur.	English Typing	3 Months	Hihger- Sec.	..	..	Recognised.	..	..	..	..	23
		English Shorthand	6 Months	..	..	..	..	..	6.00	..	..	10

126.	Rajesh Shilp Kala Mandir, 111/112, Ashok, Nagar, Kanpur.	Tailoring & Embroidry.	1 Year	IV	..	..	Unrecog-nised.	..	Rs. 1.25 (p.m.)	..	July	50
127.	Radio Television Institute, 37/19, Mall Road, Kanpur.	Radio-Transister Mechanic.	3 Months	Higher Sec.	..	..	Recog-nised.	..	22.00	..	..	12
128.	Ramkrishna Kadhai Kendra 36/34, Gillish Bazar, Shivaka Road, Kanpur.	Embroidry	..	..	..	..	Unrecog-nised.	..	10.00 (p.m.)	..	..	4
129.	Rashtriya Nari Kala Kendra 110/61, Ram Krishan Nagar, Kanpur.	Tailoring	6 Months	Higher-Sec.	..	..	Recog-nised	..	8.00 (p.m.)	..	Sept.	25
130.	Ram Devi Shilp Kala Niketan, 107/58, Jawahar Nagar, Kanpur.	Tailoring	1 Year	..	..	..	Unrecog-nised.	..	5.00 (p.m.)	..	July	20
		Embroidry	..	..	..	..	..	..	5.00 (p.m.)	..	..	20
131.	Raj Typing Centre, 15/46, Civil Line, Kanpur.	Shorthand	6 Months	Higher-Sec.	..	..	Recog-nised.	..	9.00 (p.m.)	..	..	30
		Typing	2 Months	..	..	..	..	..	7.00 (p.m.)	..	..	45
132.	S.N. Sen Balika Vidyalaya, (Degree College), Kanpur.	B.Sc.	2 Years	Intermediate	On Merit	..	..	..	18.00 (p.m.) As prescribed under rules	..	..	102
133.	Sumesh Type & Shorthand Institute, Arya Nagar, Kanpur.	Type	3 Months	Higher-Sec.	Direct	..	Unrecog-nised.	..	7.00 (p.m.)	..	..	50
		Shorthand	6 Months	..	..	..	..	..	9.00 (p.m.)	..	..	25
134.	Standard Typewriting Institute, 128/97, F-Block, Kidwai, Nagar, Kanpur.	Typing	6 Months	..	..	..	Unrecog-nised.	..	7.00 (p.m.)	..	..	40
		Shorthand	6 Months	Higher-Sec.	..	..	..	..	8.00 (p.m.)	..	..	20
135.	Smt. Nari Mahila Kala Kendra, 120/86 Lajpat Nagar, Kanpur.	Shilp Modelling	1 Year	V	..	..	..	..	..	..	..	20
		Painting	..	..	..	..	..	..	..	..	..	15
			..	..	..	..	..	..	..	..	..	5
136.	Shukla Tailoring College, 118/626, Kaushal Puri, Kanpur.	Tailoring	..	..	..	..	..	..	9.00 (p.m.)	..	..	150
137.	St. Catherine Hospital, The Mall, 63/8, Near Heer Palace Kanpur.	Auxiliary Nursing & Midwifery.	2 Years	VIII	Interview Pre-Medical	..	Recog-nised.	..	Rs. 75.00 (p.m.)	..	March/Sept.	30
138.	Srivastva type Institute, 104/437, P. Road, Kanpur.	English Typing	6 Months	Higher-Sec.	..	..	Unrecog-nised.	..	8.00 (p.m.)	..	..	100

Appendix X—Contd.

1	2	3	4	5	6	7	8	9	10	11	12	13
139.	Standard Typing Institute, Nawab Ganj (Near Nanak Restaurant), Kanpur.	English Typing	6 Months	Higher Sec.	Direct	..	Un Recog-nised	..	7.00 (p.m.)	..	..	20
140.	Shastriya Sangeet Vidya Peeth, Armapore Estate, Kanpur.	Dance	6 yrs.	Educated	Merit	..	Recog-nised.	I year. II ,, III ,, IV ,, V ,, VI ,,	5.50 6.50 7.50 8.50 9.50 10.50	..	July	18
		Vocal Music	..	..	..	..	..	..	..	..	..	25
		Sitar	..	..	..	..	..	..	..	..	..	3
		Guitar	..	..	..	..	..	..	..	..	..	5
		Tabla	..	..	..	..	..	..	..	..	..	9
141.	Swadesh Commercial College, 133/823, M-Block, Kidwai Nagar, Kanpur.	Hindi Typing	8 Months	Higher Sec.	..	..	Unrecog-nised.	..	8.00	..	..	15
		English Typing	..	..	..	..	..	..	8.00	..	..	20
		Hindi Shorthand	1 Year	..	..	..	..	..	10.00	..	..	2
		English Shorthand	..	..	..	..	..	..	10.00	..	..	3
142.	Samushad Ali Kadhai Kendra, Shiva-la Rd. Grlish Bazar, Kanpur.	Hand Embroidry	6 Months	Educated	..	..	..	..	10.00	..	..	5
143.	Sanjay Punching Institute Kurswan, Kanpur.	Key Punch Operator.	3 Months	Higher Sec.	..	..	..	..	8.00	..	..	12
144.	Soodan Stry Silai Katai & Embroidry School, Netson Road, Kanpur.	Tailoring	8 Months	Educated	..	..	Recog-nised.	..	9.00	..	..	8
		Embroidry	..	..	..	..	..	..	..	..	..	8
145.	Sarvodaya Shilp Kala Kendra, 111/78, Ashok Nagar, Kanpur.	Tailoring	1 Year	VIII	..	..	Unrecog-nised.	..	8.50	..	..	25
		Painting	6 Months	..	..	..	..	..	10.50	..	..	5
146.	S.R. Singh & Co., 58/74, Birhana Road, Kanpur.	Chartered Accountancy.	4 Years	B.A.	..	..	Recog-nised.	..	..	..	..	1
147.	Tipco Type Institute/10/147 Khalasi Line, Kanpur.	Hindi Typing	6 Months	Higher Sec.	..	..	Unrecog-nised.	..	9.00	..	..	6
		English Typing	..	..	..	..	..	..	7.00	..	..	6
148.	T.C. Institute Typing House, 87/136, Dev Nagar, Kanpur.	Hindi Typing	..	..	..	..	Recog-nised	..	9.00	..	..	14
		English Type	..	..	..	..	..	..	7.00	..	..	14
149.	Tandan & Co. Laximi-Building 16/48, The Mall, Kanpur.	Chartered Accountancy Training	3 to 4 years	B.A.	On merit & inter-view	..	..	..	..	Rs. 60 per month	April 1 July 1 Oct. 1	18
150.	Upper India Sugar Institute, Maternity Hospital, Kanpur.	Midwifery	6 Months	Higher Sec.	Direct.	..	Recog-nised	..	100.0 p.m.	..	Sept.	20

151.	Ursala Hospital, Kanpur, ParadeBara Chauraha.	Midwifery Training	3 years	Higher Sec	Applica- tion	..	Recog- nised	..	30 00 p.m.	..	Aug.	200
		Head Nursing Training	2 Years	Inter	"	..	"	..	50-00 p.m.	..	Aug.	100
152.	United Typing Institute on the side of Bata Shoe Co. Gwal Toli, Kanpur.	Typing	3 Months	VIII	Direct	..	Recog- nised.	..	7-00	..	..	60
		Shorthand	6 Months	Higher Sec.	"	..	"	..	8-00	..	..	30
153.	Usha Mahila Shilp Kala Kendra 83/1 Jugi, Kanpur.	Tailoring	"	Educated	Interview	..	Unrecog- nised	..	7-00	..	..	27
154.	Usha Mahila Shilp Kala Kendra, Harjendra Nagar, Kanpur.	Tailoring	"	"	..	..	"	..	10-00	..	..	N.A.
		Embroidry	"	"	..	..	"	..	10-00	..	..	N.A.
155.	Usha Mahila Shilp Kala Kendra, 87/137 Dev Nagar, Kanpur.	Tailoring	8 Months	"	..	..	Recog- nised.	..	9-00	..	..	26
		Embroidry	"	"	..	..	"	..	9-00	..	..	26
156.	U.P. Agriculture Institute, Nawab Ganj, Kanpur.	B.Sc. Ag.	3 Years.	I.Sc. (Ag.)	Direct	..	Recog- nised.	..	11-00	A. 10% of total str- ength sti- pend @ Rs. 6* p.m.	July	120

*B. Schlorship to 4 Students; Rs. 8/- per months & Rs. 12/ p.m. for two respectively.

	<i>M.Sc. Ag.</i>	2 yrs.	<i>B. Sc. (Ag)</i>	"	..	..	..	..	..	Rs. 15/- a) Rs. 15/ p.m. to specified students b) Rs. 55 p.m. for S.C. students	..	..
	Agronomy	"	"	"	..	..	"	..	"	"	14	..
	Genetics & Plant Breeding	"	"	"	..	..	"	..	"	"	13	..
	Agricultural Chemistry	"	"	"	..	..	"	..	"	"	9	..
	Plant Pathology	"	"	"	..	..	"	..	"	"	11	..
	Horiculture	"	"	"	..	..	"	..	"	"	16	..
	Economics	"	"	"	..	..	"	..	"	"	17	..
	Extension	"	"	"	..	..	"	..	"	"	14	..
	Animal Husban- dry & Dairying	"	"	"	..	..	"	..	"	"	4	..
	Soil Cnservation	"	"	"	..	..	"	..	"	"	9	..
	Plant Physiology	"	"	"	..	..	"	..	"	"	8	..
	Entomology	"	"	"	..	..	"	..	"	"	13	..
	<i>Ph. D.</i>											
	Agronomy	3 yrs.	<i>M.Sc. Ag.</i>	Direct	Doctorate	Yes	Kanpur	20-00 p.m.	Rs. 200 for 20 students	July-Aug.	..	..
	Genetics & Plant Breeding	"	"	"	"	"	"	"	"	"	7	..
	Agricultural Chemistry	"	"	"	"	"	"	"	"	"	5	..
	Plantahology	"	"	"	"	"	"	"	"	"	4	..
	Aga Hostialine	"	"	"	"	"	"	"	"	"	9	..
	Agricultural Economics	"	"	"	"	"	"	"	"	"	5	..

APPENDIX X—Contd.

1	2	3	4	5	6	7	8	9	10	11	12	13
		Animal Husbandry	3 Years.	M.Sc.Ag.	Direct	Doctorate	Yes	Kanpur	Rs.20 p.m.	Rs.200 for 20 students	July- Aug.	1
		Soil Conservation	"	"	"	"	"	"	"	"	"	..
		Plant Physiology	"	"	"	"	"	"	"	"	"	..
		Extensgor	"	"	"	"	"	"	"	"	"	1
		Zoology	"	"	"	"	"	"	"	"	"	..
		Plantahology	"	"	"	"	"	"	"	"	"	6
157	V.S.S.D. College, Nawab Ganj, Kanpur.	B. Ed.	1 Year.	B.A.	Direct	Graduate	Yes	Kanpur	Rs. 30.14	Nil	July	200
		L.L.B.	3 Years.	"	"	"	"	"	Rs. 20.16	"	"	600
		M. Com.	2 Years.	B. Com	"	Post- Gaduate	Yes	Kanpur	Rs. 20.16	Nil	July	60
		M.Sc. Chemistry	"	B.Sc.	"	"	"	"	Rs. 22.46	"	"	70
		M.Sc. Physics	"	"	"	"	"	"	Rs. 22.46	"	"	50
		M.A. English	"	B.A.	"	"	"	"	Rs. 20.10	"	"	35
		M.A. Economics	"	B.A. (Eco)	"	"	"	"	"	"	"	100
		M.A. History	"	B.A. (History)	"	"	"	"	"	"	"	20
		M.A. Geography	"	B.A. (Geog)	"	"	"	"	"	"	"	80
		M.A. Sanskrit	"	B.A. (Sanskrit)	"	"	"	"	"	"	"	50
		M.A. Sociology	"	B.A. (Sociology)	"	"	"	"	"	"	"	20
		M.Sc. (Maths)	"	B.Sc. (Maths)	"	"	"	"	Rs. 22.40	"	"	55
		M.A. (Military Sc.)	"	B.Sc.	"	"	"	"	Rs. 22.10	"	"	30
		M.A. (Hindi)	"	B.A.	"	"	"	"	"	"	"	35
		M.A. (Pol. Sc.)	"	B.A.	"	"	"	"	"	"	"	50
158.	U.S.S.D. College, Kanpur.	B.S.c.	2 Years.	Intermediate	By Ad- visory Committee	Graduate	Yes	Kanpur	Rs. 20.00	..	July	266
		B. Com.	"	"	"	"	"	"	Rs. 10.00	..	"	366
		L.L.B.	3 Years.	Graduate	"	"	"	"	Rs. 20.00	..	"	506
159.	Vishnu Shilp Kala Kendra, 140-A, Block-Juhi Colony, Kanpur.	Tailoring } Embroidry. }	2 Years.	VIII	Direct	Certificate	No	..	Rs. 5.00	..	July	99

**Appendix X
(PART B)**

OUT-TURN FROM THE EDUCATIONAL INSTITUTIONS BY LEVEL OF EDUCATION

Certificate Level Courses

Trade/Course	Duration of Course		Number of Seats	Actual out-turn during 1973	Likely out-turn during next 5 years
	Year	Months			
1	2	3	4	5	6
MEDICAL					
1. Lab. Technician	1	..	40	32	170
2. Electro Complex	1	..	15	3	40
3. Homeopathy (including correspondence course in Homeopathy)	1½-2½	..	55	11	60
ENGINEERING/TECH					
1. Leather work	2	..	20	2	10
2. Draughtsmen Civil	2	..	32	12	80
3. " Mech	"	..	64	23	160
4. Electrician	"	..	160	70	260
5. Electroplater	"	..	16	..	30
6. Fitter	"	..	320	85	790
7. Mech. Instrument	"	..	64	19	160
8. Electronics	"	..	64	..	160
9. Grinder	"	..	24	1	60
10. Machinist Composite	"	..	84	16	210
11. Shaper & Planer	"	..	48	5	120
12. Mech. Radio & Television	"	..	64	17	130
13. Pattern maker (Wood)	"	..	16	..	20
14. Surveyor	"	..	32	2	80
15. Turner	"	..	168	38	440
16. Tool & Die maker	"	..	64	2	110
17. Wireman	"	..	80	21	180
18. Carpenter	"	..	16	..	80
19. Motor Mechanic	"	..	80	52	330
20. Tractor Mech.	"	..	16	..	80
21. Mech. Refrigeration & Air Conditioning	1	..	32	28	160
22. Moulder	"	..	32	10	100
23. Painter	"	..	32	17	100
24. Plumber	"	..	16	6	80
25. Sheet metal worker	"	..	16	13	80
26. Welder Gas & Elec.	"	..	48	46	240
27. Sugar Engg.	"	..	6	6	30
28. Sugar Biology	"	6	34	32	160
29. Khandsari Sugar Supervisor	"	9	7	6	30
VOCATIONAL					
1. Book Binding	1	..	16	1	30
2. Compositor hand & proof reading	"	..	16	10	60
3. Printing Machine Operator	"	..	16	9	50
4. Stenography Hindi:					
for Boys	"	..	32	24	150
for Girls	"	..	32	31	160

Appendix X—Contd.
(PART B)

	1	2	3	4	5	6
5. Sienography English:						
Boys		1	..	32	39	160
Girls		1	..	32	29	160
6. Cutting & Tailoring Women		1	..	48	62	240
7. Embroidery (Women)		1	..	32	10	100
TEACHING						
<i>Instructor's Course for Engg/Vocational Trades</i>						
1. Electrician		1	..	20	10	50
2. Fitter		1	..	40	8	40
3. Machinist		1	..	32	8	40
4. Motor Mech.		1	..	20	14	70
5. Turner		1	..	32	8	40
6. Wireman		1	..	20	16	80
7. Welder		1	..	16	3	20
8. Cutting & Tailoring		1	..	20	20	20
9. Weaving		1	..	20	30	..
10. Printing		1	..	36	..	40
EDUCATION						
B.T.C.		1	..	570	499	2460
DIPLOMA LEVEL						
<i>Medical</i>						
General Nursing		3	..	425	337	1448
Midwifery		..	6	20	19	95
Auxiliary Nursing		2	..	110	85	360
Head Nursing		2	..	100	70	350
Pharmacist		1	..	120	91	455
B.M.S. (Homeopathy)		4	..	200	123	615
<i>Eng./Tech.</i>						
Tanning Tech.		2	..	10	8	50
Footwear Tech.		2	..	20	9	50
Textile Tech.		3	..	20	4	50
Textile Chemistry		3	..	10	2	30
Civil Engg.		3	..	60	14	70
Elect. Engg.		3	..	120	55	275
Mech. Enggl		3	..	120	75	375
Chemical Engg.		4	..	10	..	25
Electronics		3	..	30	..	130
Instrument Engg.		1	..	10	7	40
<i>Fellowship in National Sugar Instt : N.S.I.</i>						
(i) Sugar Tech.	}					
(ii) Sugar Chemistry		3	..	9	9	45
(iii) Alcohol Tech.						
(iv) Sugar Engg.						
<i>Associateship of N.S.I.</i>						
(i) Sugar Tech.		2½	..	52	48	196
(ii) Sugar Engg.		1	..	13	12	60
Diploma in Industrial Fermentation in Alcohol Tech.		1	..	30	28	140
GRADUATE LEVEL						
<i>Medicine</i>						
1. M.B.B.S.		4½	..	190	199	1000
		+ 1 year Internship				
2. Nursing		2	..	12	12	60

Appendix X—Contd.
(PART B)

	1	2	3	4	5	6
<i>Engg./Tech.</i>						
1. B.Sc. Chemical Engg.		4	..	40	42	200
2. B.Sc. Electrical Engg.		4	..	37	37	150
3. B.Sc. Mechanical Engg.		4	..	30	28	145
4. B.Sc. Civil Engg.		4	..	20	12	70
5. B.Sc. Bio-Chemistry		3	..	30	10	100
6. B.Sc. Paints		3	..	15	15	75
7. B.Sc. Plastic		3	..	15	15	75
8. B.Tech. Textile Technology		4	..	20	11	56
9. B. Tech. Textile Chemistry		4	..	10	8	44
10. B.Tech. Aeronautical Engg.		5	..	10	6	40
11. B.Tech. Chemical Engg.		5	..	60	55	275
12. B.Tech. Civil Engg.		5	..	10	8	40
13. B.Tech. Electrical Engg.		5	..	75	72	360
14. B.Tech. Mechanical Engg.		5	..	65	60	300
15. B.Tech. Metallurgical		5	..	35	28	140
<i>Others</i>						
1. L.T.		1	..	280	180	900
2. B.Ed.		1	..	1675	1420	6665
3. L.L.B.		3	..	770	715	3575
4. L.L.B.		2	..	170	139	695
5. B.Sc. A.G.		3	..	120	80	400
6. B.Sc.		2	..	2427	992	4510
POST-GRADUATE & DOCTORATE LEVEL.						
<i>Ph.D.</i>						
<i>Science</i>						
Zoology		3	..	6	..	3
Physics		3	..	20	4	30
Chemistry		3	..	26	14	70
Maths		3	..	13	7	33
Physical Chemistry		3	..	1	1	5
Organic Chemistry		3	..	1	1	5
			..	67	27	146
<i>Engineering</i>						
Plastic		3	..	14	..	10
Oil, Paints		3	..	22	..	5
Chemistry Engg.		3	..	2	..	7
Food & Bio Chemistry		3	..	3	..	9
Aeronautical		3	..	..	1	5
Chemical		3	..	10	2	10
Civil		3	..	12	6	30
Electrical		3	..	6	6	30
Mechanical		3	..	9	3	15
Metrological		3	..	4	1	5
Computer		3	..	2	..	..
Humanity		3	..	9	1	5
Natural Science		3	..	2	..	..
		3		195	20	131
<i>Agriculture:</i>						
Ag. Chemistry		3	..	6	3	12
Agronomy		3	..	N.A.	..	3
Genetics & Plant Breeding		3	..	7	..	3
Plant Pathology		3	..	4	..	4
Horticulture		3	..	9	..	6
Ag. Economics		3	..	5	1	3

Appendix X—Contd.
(PART B)

	1	2	3	4	5	6
Ag. Extension		3	..	1	1	4
Animal Husbandry		3	..	N.A.	..	2
Soil Conservation		3	..	N.A.	..	4
Plant Psychology		3	..	1	..	4
				33+N.A.	5	45
POST-GRADUATE						
<i>Medicine</i>						
M.D.						
Physiology		2	..	2	..	8
Pharmacology		2	..	2	..	6
Pathology		2	..	5	..	8
Radiology		2	..	3	1	5
Tuberculosis		2	..	4	3	12
Social & Preventive Medicine		2	..	4	4	12
Paediatrician		2	..	4	3	12
Anaesthesiology		2	..	3	2	13
				27	13	76
<i>Science—M.Sc.</i>						
Physics		2	..	153	80	435
Chemistry		2	..	412	323	540
Maths		2	..	135+N.A.	50	245
Statistics		2	..	86	24	120
Zoology		2	..	409	332	1655
Botany		2	..	302	245	1830
Natural Science		2	..	9	1	5
Computer		2	..	6	..	..
<i>Agriculture</i>						
<i>M.Sc. (Ag.)</i>						
Horticulture		2	..	16	11	55
Economics		2	..	17	11	55
Extension		2	..	14	10	50
Animal Husbandry & Dairy		2	..	4	5	25
Entomology		2	..	13	11	55
Soil Conservation		2	..	9	8	40
Plant Pathology		2	..	11	9	45
Ag. Chemistry		2	..	9	10	50
Agroonomy		2	..	14	16	80
Genetics & Plant Breeding		2	..	13	10	50
Plant Psychology		2	..	8	6	30
				128	107	535
<i>M.S.</i>						
Surgery		2	..	12	11	42
Anatomy		2	..	4	1	8
Orthopadist		2	..	3	3	12
Obst. & Gynecology		2	..	4	4	18
E.N.T.		2	..	3	1	10
				30	22	100
D.M. in Cardiology		2	..	3	1	8
<i>Post graduate Diploma</i>						
Laryngology & Otolology		1	..	6	3	155
Gynecology & Obstetia		1	..	6	6	50
Medical Radiology		1	..	6	1	5
Ophthalmic & Medicine Surgery		1	..	6	1	5
Clinical Pathology		1	..	6	3	12

Appendix X—Contd.
(PART B)

1	2	3	4	5	6
Orthopaedic Surgery	1	..	6	..	12
Anaesthesiology	1	..	6	..	15
Child Health	1	..	6	6	30
Tuberculosis & Chest Diseases	1	..	6	5	25
			54	25	149
<i>Engineering M.Sc. (Egg.)</i>					
Chemical Practice	2	..	10	4	29
Chemical Design	2	..	10	1	20
Electrical/Mechanical	3	..	10	New Programme	
Industrial Maths	2	..	10	New Programme	
			40	5	49
TECHNOLOGY					
<i>M. Tech.</i>					
Bio-Chemistry	2	..	5	1	8
Food	2	..	5	..	15
Oil	2	..	5	3	20
Paints	2	..	5	2	12
Plastic	2	..	5	3	18
Aeronautical Engg.	2	..	19	4	20
Chemical Engg.	2	..	26	26	130
Civil Engg.	2	..	17	15	75
Electrical	2	..	41	39	195
Mechanical Engg.	2	..	39	24	120
Metallurgical	2	..	22	13	65
<i>Arts</i>			184	130	678
<i>M.A.</i>					
Hindi	2	..	451	281	1390
English	2	..	198	126	625
History	2	..	180	121	605
Political Science	2	..	382	233	1110
Economics	2	..	632	530	2645
Geography	2	..	345	248	1420
Drawing & Paints	2	..	161	81	405
Music	2	..	80	26	130
Sanskrit	2	..	249	129	645
Psychology	2	..	358	242	1210
Sociology	2	..	390	335	1645
Philosophy	2	..	20	14	70
Military Science	2	..	30	23	115
Urdu	2	..	60	10	50
			3536	2399	12065
<i>Commerce</i>					
M.Com.	2	..	560	358	1790
<i>Education</i>					
M.Ed.	1	..	74	59	245
M.Ed.	2	..	24	24	120
			98	83	365

Appendix X—Contd.

(PART C)

Details of Educational Institutions by leave of Education

Name of Institution	Trade/Course	Entry Qualifications	Duration of course	Number of seats	Scholarship/ Stipend if any
1	2	3	4	5	6
MEDICAL					
1. L.L.R. Associated Hospitals, Kanpur.	General Nursing (Dip.)	High School	3 years	67	130-00 p.m.
2. Upper India Sugar Institute Maternity Hospital, Kanpur.	Midwifery (Dip.)	High School	6 months	20	30-00 p.m.
3. College of Nursing, GSVM Medical College Building, Kanpur.	Nursing (Post-Basic Degree)	(i) Inter (ii) Diploma in Nursing. (iii) 3 yrs. experience as Staff-Nurse.	2 yrs.	12	..
4. GSVM Medical College, Kanpur.	(1) Lab Technic (Cet.)	High School (Sc.)	1 yr.	40	30-00 p.m.
	(2) Pharmacist (Dip.)	High School (Sc.)	1 yr.	120	40-00 p.m. for male 60-00 p.m. female
	(3) M.B.B.S. (Degree)	Inter with Biology.	4½ yrs. 1 yr. Intership.	190	..
<i>Post-Graduate Degrees:</i>					
(1) M.D.					
		(i) M.B.B.S. (ii) 1 year house job done from recognised Hospital in case of clinical subjects or 1 yr. Exp. as Demonstrator/ Curator/Registrar in case of Non-clinical subjects.			
<i>Diploma:</i>		(i) M.B.B.S.	1 year		
Laryngology & Otolology		(ii) 1 yr. house job or 1 yr. experience as Demonstrator/Curator Registrar in case of non-clerical subjects.		6	
Gynaecology & Obstetrics				6	
Medical Radiology & Electricity		..	1 year	6	
Ophthalmics & Medicine Surgery		..	1 year	6	
Clinical Pathology		..	1 year	6	
Orthopaedic Surgery		..	1 year	6	
Anaesthesiology		..	1 year	6	
Child health		..	1 year	6	
Tuberculosis & Chest Diseases		..	1 year	6	
5. Ursala Hospital, Kanpur.	(i) General Nursing (Dip.)	High School	3 yrs.	200	30.00
	(ii) Head Nursing (Dip.)	Inter	2 yrs.	100	50.00
6. A.M.H. & Duffrin Hospital, Parade, Kanpur.	General Nursing (Dip.)	High School	3 yrs.	158	30.00
7. Auxiliary Midwife Training Centre, Sutergang, Kanpur.	Auxiliary Nursing	VIII	2 yrs.	80	75.00
8. S.F. Catherine Hospital, The Mall, Kanpur.	Auxiliary Nursing (Dip.)	VIII	2 yrs.	30	75.00

Appendix X—Contd.
(PART C)

1	2	3	4	5	6	
9. Kanpur Homeopathic Medical College Building, G.N.N. Building Civil, Lines, Kanpur.	B.M.S. (Dip.)	Inter	4 yrs.	200	..	
	Medicine	(i) M.B.B.S. (ii) 1 year house job done from recognised Hospital in case of clinical subjects or 1 yr. more Exp. as Demonstrator/ Curator/ Registrar in case of non-clinical subjects	2 yrs.	10	Rs. 250.00 p.m. to selected students.	
	Physiology	„	2 yrs.	2	„	
	Pharmacology	„	2 yrs.	2	„	
	Pathology	„	2 yrs.	5	„	
	Radiology	„	2 yrs.	3	„	
	Tuberculosis	„	2 yrs.	4	„	
	Social and Preventive medicine	„	2 yrs.	4	„	
	Paediatrics	„	2 yrs.	4	„	
	Anaesthesiology	„	2 yrs.	5	„	
	(iv) M.S.					
	Surgery	„	2 yrs.	12	„	
	Anatomy	„	2 yrs.	4	„	
	Orthopadist	„	2 yrs.	3	„	
	Ophthalmology	„	2 yrs.	4	„	
	Obst. & Gynaecology	„	2 yrs.	4	„	
	E.N.T.	„	2 yrs.	3	„	
	(V) D.M.					
	Cardiology	M.S. in medicine Paediatrics	2 yrs.	3	„	
	(vi) Post-Graduate	As in case of M.D. & M.S.	1 yr.			
10. Electro Complex Homeopathic College & Cancer Hospital, 125/38, 'K' 'K' Block, Govind Nagar, Kanpur.	(i) Electro-Complex (Cet.)	M.A./M.Sc.	1 yr.	200		
	(ii) Homeopathic (Cet.)	B.A./B.Sc.	1½ yrs.	15		
	(iii) Correspondence course in Homeopathic (Cet.)	High School or Inter	1½ yrs. 2 yrs.	20 20		
ENGINEERING/TECHNOLOGY/VOCATIONAL						
11. Indian Institute of Technology, Kalyanpur, Kanpur.	<i>B.Tech. Degree</i>					
	1. Aeronautical	Higher Secondary or Inter with Sc.	5 years.	10	Rs. 75 p.m. to 25% of students.	
	2. Chem. Engg.	„	5 yrs.	60	„	
	3. Civil Engg.	„	5 yrs.	10	„	
	4. Elect. Engg.	„	5 yrs.	75	„	
	5. Metallurgical Engg.	„	5 yrs.	35	„	
	6. Mechanical Engg.	„	5 yrs.	65	„	
	<i>M.Tech. (P.G. Degree)</i>					
	1. Aeronautical	B.Tech./B.Sc. Engg.	2 yrs.	19	250 p.m.	
	2. Chemical	„	2 yrs.	26	„	
3. Civil	„	2 yrs.	17	„		

Appendix X—Contd.
(PART C)

1	2	3	4	5	6	
1. Indian Institute of Technology—Contd.	4. Electrical	,,	2 yrs.	41	Rs. 250/- p.m.	
	5. Mechanical	,,	2 yrs.	39	,,	
	6. Metallurgical	,,	2 yrs.	22	,,	
	<i>Doctorate Mech.</i>					
	1. Aeronautical	M. Tech.		3 yrs.	N.A.	Rs. 400 p.m.
	2. Chemical	,,		3 yrs.	10	,,
	3. Civil	,,		3 yrs.	12	,,
	4. Electrical	,,		3 yrs.	6	,,
	5. Mechanical	,,		3 yrs.	9	,,
	6. Metallurgical	,,		3 yrs.	4	,,
	P.G. SCIENCE					
	<i>M.Sc.</i>					
	1. Chemistry			2 yrs.	13	Rs. 75 p.m.
	.					
	2. Maths.			2 yrs.	6	,,
	3. Statistics			2 yrs.	6	,,
	4. Physics			2 yrs.	10	,,
	5. Computer			2 yrs.	6	,,
	<i>Doctorate in Sc.</i>					
	Chemistry	M.Sc.		3 yrs.	21	N.A.
	Maths.	,,		3 yrs.	11	,,
Physics	,,		3 yrs.	12	,,	
Humanity	,,		3 yrs.	9	,,	
Computer	,,		3 yrs.	2	,,	
2. Government Leather Institute, Gwaltoni, Kanpur.	<i>Certificate</i>					
	1. Leather Work	VIII		2 yrs.	20 16 p.m.	
	<i>Diploma</i>					
	1. Tanning Tech.	High School		2 yrs.	10 30 p.m.	
	2. Footwear Tech.	High Sch. Pref. with Sc.		2 yrs.	20 ,, p.m.	
	<i>Graduate Engg.</i>					
	1. B.Sc. Chem. Engg.	Inter (with Physics)		4 yrs.	40	75 p.m. to 25% of Students
	2. B.Sc. Electrical Engg.	,,		4 yrs.	37	,,
	3. B.Sc. Mechanical Engg.	,,		4 yrs.	30	,,
	4. B.Sc. Civil Engg.	,,		4 yrs.	20	,,
<i>B.Tech.</i>						
1. Bio Chemical & Food Tech.	B.Sc. with Physics, Chemistry		3 yrs.	30	,,	
2. Oil	,,		3 yrs.	15	,,	
3. Paints	,,		3 yrs.	15	,,	
4. Plastics	,,		3 yrs.	15	,,	
POST GRADUATE						
<i>M.Sc. Engg.</i>						
1. Chem. Engg. & Plastics.	B.Sc. Engg.		2 yrs.	10	250 p.m.	
2. Chemical Engg. & Design.	,,		2 yrs.	10	250 p.m.	

Appendix X—Contd.
(PART C)

1	2	3	4	5	6	
3. H.B.T.I., Nawabganj Kanpur.—Contd.	3. Electrical/ Mech./Industrial	B.Sc. Engg.	3 yrs.	10	Rs. 250/.	
	4. M.Sc. Maths.	„	2 yrs.	10	„	
	<i>M.Sc. Tech.</i>					
	Bio-Chemistry	B.Sc. Tech.	2 yrs.	5	250 p.m.	
	Food	„	2 yrs.	5	„	
	Oil	„	2 yrs.	5	„	
	Paints	„	2 yrs.	5	„	
	Plastics	„	2 yrs.	5	„	
	<i>Doctorate</i>					
	Physics	M.Sc.	3 yrs.	8	N.A.	
	Chemistry	„	3 yrs.	4	„	
	Plastics	M.Sc. Tech.	3 yrs.	14	„	
	Maths	M.Sc.	3 yrs.	2	„	
	Oil & Paints	M.Sc. Tech.	3 yrs.	22	„	
	Chemical Engg.	M.Sc. Engg.	3 yrs.	2	„	
	Food & Bio- Chemistry.	M.Sc. Tech.	3 yrs.	2	„	
	4. Govt. Central Textile Institute, Souter- ganj, Kanpur.	DIPLOMA				
1. Textile Technology		High School with Sc.	3 yrs.	20	Rs. 30 p.m.	
2. Textile Chemistry		„	3 yrs.	10	Rs. 30 p.m.	
DEGREE						
1. Textile Technology		Intermediate Sc.	4 yrs.	20	Rs. 75 p.m.	
2. Textile Chemistry		„	4 yrs.	10	„	
CERTIFICATE						
5. National Sugar Institute, Kalyanpur, Kanpur.		1. Sugar Engg.	Diploma in Engg.	1 yr.	6	N.A.
		2. Sugar Biology	High School with Sc.	6 months	34	„
		3. Khandsari Supervisor	„	9 months	7	„
	4. Khandsari Karigar	VIII	4 months	N.A.	„	
FELLOWSHIP						
1. Sugar Techno.	Associateship course of N.S.I. in Sugar Engg.	3 yrs.	9	N.A.		
2. Sugar Chemistry	„	3 yrs.	5	„		
3. Alcohol Technology	„	3 yrs.	5	„		
4. Sugar Engg.	„	3 yrs.	5	„		
ASSOCIATESHIP						
1. Sugar Tech.	B.Sc. with Maths 45% marks	2½ yrs.	52	N.A.		
2. Sugar Engg.	Degree in Elect./ Mech. Engg.	1 yr.	13	„		
DIPLOMA						
Industrial Fermentation in Alcohol Techno. (DIFAT)	Associateship Sugar Tech. or B.Sc. with exp. in Distrillary.	1 yr.	30	N.A.		
RESEARCH FOR Ph.D.						
1. Physical Chem.		3 yrs.	1	N.A.		
2. Organic Chem.		3 yrs.	1	„		

Appendix IX—Contd.
(PART C)

1	2	3	4	5	6
5. National Sugar Institute—Contd.	3. Bio-Chemistry		3 yrs.	1	N.A.
	4. Agri-Chemistry		3 yrs.	1	„
DIPLOMA					
6. Govt. Polytechnic, Kalyanpur, Kanpur.	1. Civil Engg.	High School with Sc. at least 40% marks in Sc. & Maths.	3 yrs.	60	As per State Govt. Orders for different categories.
	2. Elect. Engg.	„	3 yrs.	120	„
	3. Mech. Engg.	„	3 yrs.	120	„
	4. Chemical Engg.	„	4 yrs.	10	„
	5. Electronics	„	3 yrs.	30	„
	6. Industrial Engg. (Post-Diploma)	Diploma in Elec./Mech. Engg.	1 yr.	10	„
CERTIFICATE ENGG.					
7. Industrial Training Institute, Pandu Nagar, Kanpur.	1. Draughtsman Civil.	High School with Sc.	2 yrs.	32	Rs. 25 p.m. to 33%
	2. „ Mech.	„	2 yrs.	64	„
	3. Electrician	„	2 yrs.	128	„
	4. Electroplater	High School	2 yrs.	16	Rs. 25 p.m. to all.
	5. Fitter	VIII	2 yrs.	288	Rs. 25 p.m. to 33%
	6. Mechanic Instrument.	High School	2 yrs.	68	„
	7. Electronics	„	2 yrs.	64	„
	8. Mech. Grinder	VIII	2 yrs.	24	„
	9. Mech. Compo-site.	„	2 yrs.	72	„
	10. Mech. Shaper, Shofter and Planer.	„	2 yrs.	48	„
	11. Radio & Television Mech.	High School Sc.	2 yrs.	48	„
	12. Pattern -Maker (Wooden)	„	2 yrs.	16	Rs. 25 to all
	13. Surveyor	„	2 yrs.	32	„
	14. Turner	VIII	2 yrs.	156	Rs. 25 to 33%
	15. Tool and Die Maker.	High School Sc.	2 yrs.	32	„
	16. Wireman	VIII	2 yrs.	64	„
	17. Carpenter	„	1 yr	16	25 to all
	18. Motor Mech.	„	1 yr	64	25 p.m.
	19. Tractor Mech.	„	1 yr	16	„
	20. Mech. Refrigeration and Air-conditioning	High School Sc.	1 yr	32	„
	21. Moulder	VIII	1 yr	32	25 p.m. to all
	22. Painter	„	1 yr	32	„
	23. Plumber	„	1 yr	16	„
	24. Sheet Metal Worker	„	1 yr	16	„
	25. Welder Gas Elect.	„	1 yr	48	25 p.m. to 33%

Appendix X—Contd.
(PART C)

1	2	3	4	5	6	
VOCATIONAL						
7. Industrial Training Institute, Pandu Nagar, Kanpur—Contd.	(a) Boys					
	1. Book Binding	VIII	1 yr.	16	As decided by Adv. Committee	
	2. Cutting & Tailoring	„	1 yr.	32	„	
	3. Hand Composition and Proof Reading.	„	1 yr.	16	„	
	4. Printing Machine Operators	„	1 yr.	16	„	
	5. Stenography Hindi.	High School	1 yr.	32	„	
	6. Stenography English.	„	1 yr.	32	„	
	(b) Girls					
	1. Cutting & Tailoring	VIII	1 yr.	48	„	
	2. Embroidery	„	1 yr.	32	„	
	3. Knitting & Weaving Machine	„	1 yr.	16	„	
	4. Stenography Hindi	High School	1 yr.	32	„	
	5. Stenography English.	„	1 yr.	32	„	
	8. Central Training Institute for Instructors Govindnagar, Kanpur.	Instructors Certificate Course	(i) High School (ii) Certificate in the trade (NCTVT) (iii) 5 yrs. Exp.	1 yr. for all		„
		1. Electrician	„	„	20	„
2. Fitter		„	„	40	„	
3. Machinist		„	„	32	As decided by Adv. Committee	
4. Motor Mech.		„	„	20	„	
5. Turner		„	„	32	„	
6. Wireman		„	„	20	„	
7. Welder		„	„	16	„	
8. Cutting & Tailoring		„	„	20	„	
9. Weaving		„	„	20	„	
10. Printing		„	„	36	„	
VOCATIONAL TRADE						
Do. (Model Training Institute)		1. Welder	VIII	1 yr.	34	25 p.m. to 33 1/3 % of Students
		2. Motor	„	1 yr.	16	
		3. Cutting & Tailoring	„	1 yr.	16	
	4. Electrician	High School Sc.	2 yrs.	32		
	5. Fitter	VIII	2 yrs.	32		
	6. Machinist (Composite)	„	2 yrs.	12		
	7. Turner	„	2 yrs.	12		
	8. Wireman	„	2 yrs.	16		
	9. Tool & Die Maker	High School Sc.	2 yrs.	32		
	10. Mech. Radio & Television.	„	2 yrs.	16		

Appendix X—Contd.
(PART C)

1	2	3	4	5	6	
PROFESSIONAL, TRAINING AND POST-GRADUATE COLLEGES/INSTITUTIONS						
	Degree					
1.	L.T. College (D.A.V. College Compound) L.T. Civil Lines, Kanpur.	Graduate	1 yr.	280	N.A.	
2.	Dayanand Womens' Training College, Makrobertgaj, Kanpur	B.Ed.	1 yr.	240	"	
		M.Ed.	B.Ed./L.T.B.T.	1 yr.	24	
		"	"	2 yrs.	24	"
3.	U.P. Institute of Agricultural Science, Nawabganj, Kanpur.	B.Sc. (Agri.)	I.Sc. Agri. or I.Sc.	3 yrs.	120	Merit Scholarship. 1. Rs. 15 p.m. to 10% of Students. 2. Rs. 55 p.m. to all Scheduled Caste Stu- dents.
		M.Sc. (Agri.)	B.Sc. Agr. or I.C.	2 yrs.		
	1. Agronomy	"	2 yrs.	14	"	
	2. Genetics & Plant Breeding	"	2 yrs.	13	"	
	3. Agr. Chemistry	"	2 yrs.	9	"	
	4. Plant Pathology	"	2 yrs.	11	"	
	5. Horticulture	"	2 yrs.	16	"	
	6. Economics	"	2 yrs.	17	"	
	7. Extension	"	2 yrs.	14	"	
	8. Animal Hus- bandry & Dairying	"	2 yrs.	4	"	
	9. Soil Conserva- tion.	"	2 yrs.	9	"	
	10. Plant Physio- logy.	"	2 yrs.	8	"	
	11. Entomology	"	2 yrs.	13	"	
	DOCTORATE (Ph.d.) Degree	M.Sc. Agri.	3 yrs.		200 p.m. to 20 Students.	
	1. Agronomy	"	3 yrs.	N.A.	"	
	2. Genetics & Plant Breeding	"	3 yrs.		"	
	3. Chemistry (Agri.)	"	3 yrs.	7	"	
	4. Plant Pathology	"	3 yrs.	5	"	
	5. Horticulture	"	3 yrs.	9	"	
	6. Economics	"	3 yrs.	5	"	
	7. Extension	"	3 yrs.	1	"	
	8. Animal Husbandry & Dairying	"	3 yrs.	N.A.	"	
	9. Soil Conser- vation	"	3 yrs.	N.A.	"	
	10. Plant Physiology	"	3 yrs.	1	"	
	11. Entomology	"	3 yrs.	6	"	
4.	Dayanand Girls College, Civil Lines, Kanpur.	B.Sc.	I.Sc.	2 yrs.	41	N.A.
		M.A.	B.A.	2 yrs.		
		1. Hindi	"	2 yrs.	16	
		2. English	"	2 yrs.	13	
		3. History	"	2 yrs.	15	
	4. Pol. Sc.	"	2 yrs.	22		

Appendix X—Contd.
(PART C)

1	2	3	4	5	6	
4. Dayanand Girls College, Civil Lines, Kanpur.— <i>Contd.</i>	5. Economics	B.A.	2 yrs.	30	N.A.	
	6. Geography	"	2 yrs.	28		
	7. Drawing & Painting	"	2 yrs.	16		
	8. Music	"	2 yrs.	20		
	9. Sanskrit	"	2 yrs.	19		
	10. Psychology	"	2 yrs.	24		
	M.Sc.	B.Sc.	2 yrs.			N.A.
	1. Physics	"	2 yrs.	26		
	2. Chemistry	"	2 yrs.	30		
	3. Zoology	"	2 yrs.	25		
4. Botany	"	2 yrs.	20			
5. D.A.V. College, Civil Lines, Kanpur	B.Sc.	I.Sc.	2 yrs.	795	N.A.	
	M.A.	B.A.	2 yrs.			
	1. English	"	2 yrs.	40		
	2. Hindi	"	2 yrs.	100		
	3. Sanskrit	"	2 yrs.	50		
	4. Med. History	"	2 yrs.	60		
	5. Ancient "	"	2 yrs.	60		
	6. Geography	"	2 yrs.	200		
	7. Pol. Science	"	2 yrs.	150		N.A.
	8. Philosophy	"	2 yrs.	20		N.A.
	9. Economics	"	2 yrs.	300		
	10. Sociology	"	2 yrs.	150		
	11. Physiology	"	2 yrs.	60		
	12. Drawing	"	2 yrs.	70		
	M.Com.	B.Com.	2 yrs.	500		N.A.
	M.Sc.	B.Sc.	2 yrs.	500		N.A.
	1. Maths.	"	2 yrs.	10		
2. Chemistry	"	2 yrs.	200			
3. Zoology	"	2 yrs.	350			
4. Botany	"	2 yrs.	200			
5. Statistics	"	2 yrs.	80			
6. Brahma Nand Degree College, The Mall, Kanpur.	B.Sc. (Phy. Chem. Maths.)	Intermediate	2 yrs.	639	N.A.	
	B.Sc. (Bio.)	Intermediate Sc. (Bio.)	2 yrs.	639		
	L.L.B.	Graduate	2 yrs.	40		
	"	"	3 yrs.	20		
7. P.P.N. Post Graduate College, Kanpur	B.Sc	I.Sc	2 yrs.	300	N.A.	
	M.A.	B.A.	2 yrs.			
	1. Hindi	"	2 yrs.	20		
	2. Economics	"	2 yrs.	32		
	3. Psychology	"	2 yrs.	34		
	4. Geography	"	2 yrs.	40		
	M.Sc.	B.Sc.	2 yrs.			
	1. Physics	"	2 yrs.	35		
2. Chemistry	"	2 yrs.	30			
3. Maths.	"	2 yrs.	20			
8. V.S.S.D. Post-Graduate College, Nawabganj, Kanpur.	B.Ed.	Graduate	1 yr.	200	N.A.	
	L.L.B.	"	3 yrs.	600		
	B.Sc.	I.Sc.	2 yrs.	266		

Appendix X—Contd.
(PART C)

1	2	3	4	5	6
8. V.S.S.D. Post-Graduate College, Nawabganj, Kanpur.— <i>Contd.</i>	<i>M.A.</i>	Graduate	2 yrs.		
	English	"	2 yrs.	35	N.A.
	Economics	"	2 yrs.	100	"
	History	"	2 yrs.	20	"
	Geography	"	2 yrs.	80	"
	Sanskrit	"	2 yrs.	50	"
	Sociology	"	2 yrs.	20	"
	Military	"	2 yrs.	30	"
	Science	"	2 yrs.		
	Hindi	"	2 yrs.	35	"
	Pol. Science	"	2 yrs.	50	"
	<i>M.Sc.</i>	<i>B.Sc.</i>	2 yrs.		
	Maths.	"	2 yrs.	55	"
	Physics	"	2 yrs.	50	"
	Chemistry	"	2 yrs.	70	"
<i>M.Com.</i>	<i>B.Com.</i>	2 yrs.	60	"	
9. Dayanand College of Law, Civil Lines, Kanpur.	L.L.B.	Graduate	3 yrs.	150	N.A.
	L.L.B.	"	2 yrs.	130	"
10. R.S. Gram Udyog Post-Graduate College, Pukhrayan Distt., Kanpur.	<i>M.A.</i> Hindi	Graduate	2 yrs.	60	N.A.
11. D.B.S. College, Govind Nagar, Kanpur.	<i>B.Ed.</i>	Graduate	1 yr.	480	N.A.
	<i>B.Sc.</i>	<i>I.Sc.</i>	2 yrs.	135	"
	<i>M.A.</i>	Graduate	2 yrs.	N.A.	"
	Hindi	"	2 yrs.	"	"
	English	"	2 yrs.	"	"
	Economics	"	2 yrs.	"	"
	Pol. Science	"	2 yrs.	"	"
	Sociology	"	2 yrs.	"	"
	History	"	2 yrs.	"	"
	<i>M.Sc.</i>	<i>I.Sc.</i>	2 yrs.	"	N.A.
	Physics	"	2 yrs.	22	"
	Chemistry	"	2 yrs.	45	"
	Maths.	"	2 yrs.	N.A.	"
	Zoology	"	2 yrs.	22	"
Botany	"	2 yrs.	22	"	
12. Mahila Mahavidyalay, Kidwai Nagar, Kanpur.	<i>B.Ed.</i>	Graduate	1 yr.	160	N.A.
13. Juhari Devi Girls Degree College, Canal Road, Kanpur.	<i>M.A.</i>	Graduate	2 yrs.		N.A.
	Hindi	"	2 yrs.	60	"
	Drawing & Painting	"	2 yrs.	60	"
	Psychology	"	2 yrs.	60	"
	Music	"	2 yrs.	60	"
14. Christ Church College, The Mall, Kanpur.	<i>B.Sc.</i>	<i>I.Sc.</i>	2 yrs.	300	N.A.
	<i>M.A.</i>	Graduate	2 yrs.		
	Hindi	"	2 yrs.	60	"
	English	"	2 yrs.	60	"
	Economics	"	2 yrs.	120	"
	Sociology	"	2 yrs.	60	"
	Pol. Science	"	2 yrs.	60	"
		<i>B.Sc.</i>			
	Chemistry	"	2 yrs.	24	"
	Physics	"	2 yrs.	10	"
	Botany	"	2 yrs.	10	"
Zoology	"	2 yrs.	6	"	
Maths.	"	1 yr.	50	"	

Appendix X—Contd.
(PART C)

1	2	3	4	5	6
15. Acharya Narendra Dev. Mahapalika, Kanpur.	B.Ed.	Graduate	1 yr.	250	N.A.
	B.Sc.	I.Sc.	2 yrs.	149	"
	M.A.	Graduate	2 yrs.		"
	English	"	2 yrs.	50	"
	Hindi	"	2 yrs.	50	"
	Sanskrit	"	2 yrs.	60	"
	Art.	"	2 yrs.	15	"
	Psychology	"	2 yrs.	100	"
	Economics	"	2 yrs.	50	"
	History	"	2 yrs.	25	"
	Pol. Science	"	2 yrs.	50	"
	Sociology	"	2 yrs.	100	"
	M.Sc.	B.Sc.	2 yrs.		"
	Botany	"	2 yrs.	50	"
16. Haleem Muslim Degree College, Haleem Compound, Chamanganj, Kanpur.	B.Ed.	B.Ed./L.T. B.T.	1 yr.	50	"
	B.Ed.	Graduate	1 yr.	165	N.A.
	M.A.	"	2 yrs.		N.A.
	Urdu	"	2 yrs.	60	"
17. S.N. Sen Vidyalaya, Kanpur.	Sociology	"	2 yrs.	60	"
	B.Sc.	Graduate	1 yr.	102	N.A.
18. Jrwala Devi Vidyamandir Degree College, Anand Bagh, Kanpur.	M.A.	Graduate	2 yrs.		N.A.
	Hindi	"	2 yrs.	50	"
	Pol. Science	"	2 yrs.	50	"
	Sanskrit	"	2 yrs.	50	"
19. International Centre College of Education, Brijendra Swaroop Park, Kanpur.	B.Ed.	Graduate	1 yr.	180	"
20. Central College of Management, 9/63, Aryanagar, Kanpur.	<i>Diploma</i>				
	Business Management.	Graduate	1 yr.	15	N.A.
	Marketing Management.	"	1 yr.	15	"
	Company Management.	"	2½ yrs.	15	"
<i>Certificate</i>					
21. Govt. Normal Girls School, Pandunagar, Kanpur.	B.T.C.	High School	1 yr.	100	30/ to all
22. Govt. Normal School, Bithoor, Distt. Kanpur.	B.T.C.	High School	1 yr.	100	20/ to all
23. B.P.M.G. Inter College (Trg. Section), Mandhana, Distt. Kanpur.	B.T.C.	High School	1 yr.	60	"
24. Govt. Normal School, Pukhrayan, Distt. Kanpur.	B.T.C.	High School	1 yr.	100	"
25. Rajkiya Diksha Vidyalaya, Narval, Distt. Kanpur.	B.T.C.	High School	1 yr.	150	"
26. Gyan Bhartiya Balika Inter College (B.T.C. Section), Birahana Road, Kanpur.	B.T.C.	High School	1 yr.	60	20/ to all
27. District Manager, Telephones, M.G. Road, Kanpur.	Telephone Operator.	High School	1 month	N.A.	..
28. Govt. Community & Canning Centre West Cott., Building, The Mall, Kanpur.	Fruit Preservation	Lit.	10-15 days	22	..
<i>Other Professional/Vocational Courses by Unrecognised Institutions</i>					
SHORTHAND TYPEWRITING					
1. Rajiv Typing Centre, 15/46, Civil Lines, Kanpur.	(i) Eng. Shorthand	High School	6 months	30	..
	(ii) Eng./Type	"	6 months	45	..

Appendix X—Contd.
(PART C)

1	2	3	4	5	6	
2.	United typing Institute, Gwaltoli, Kanpur	(i) Eng. Shorthand	High School	6 months	30	..
		(ii) Eng. type.	..	6 months	60	..
3.	Ram Typing Centre, 14/82, Civil Lines, Kanpur.	(i) Short hand Eng. type.	..	6 months	15	..
		(ii) Eng.	..	6 months	45	..
4.	Sumee Type & Short hand, Aryanagar, Kanpur.	(i) Shorthand Eng.	..	6 months	25	..
		(ii) Eng.Type	..	6 months	50	..
5.	Prem Commercial Institute, 118/183, Bumba Road, Kanpur.	(i) Shorthand Eng.	..	6 months	35	..
		(ii) Type Eng.	..	6 months	35	..
6.	Standard Typing Institute, 128/97F Block, Kidwainagar.	(i) Shorthand Eng.	..	6 months	20	..
		(ii) Type Eng.	..	6 months	40	..
7.	Arun Type College, 128/8D, Kidwainagar, Kanpur.	(i) Shorthand Eng.	..	6 months	5	..
8.	Das Type & Shorthand College, Govindnagar, Kanpur.	(i) Eng. Shorthand.	..	6 months	5	..
		(ii) Hindi Shorthand.	..	6 months	2	..
		(iii) Eng. Typing	..	6 months	15	..
		(iv) Hindi Typing	..	6 months	10	..
9.	Ravi Type & Shorthand Institution, Block 7, Govindnagar, Kanpur.	(i) Eng. Shorthand	..	6 months	8	..
		(ii) Hindi Shorthand	..	6 months	8	..
		(iii) Eng. Typing	..	6 months	8	..
		(iv) Hindi Typing	..	6 months	8	..
10.	Dilip Shorthand and Type Institution, 124/13, Govindnagar, Kanpur.	(i) Eng. Shorthand	..	6 months	25	..
		(ii) Hindi Shorthand.	..	6 months	25	..
		(iii) Eng. Type	..	6 months	100	..
		(iv) Hindi Type	..	6 months	25	..
11.	Jai Bharat Commercial Institution, Lal Kunwa, 178, Govindnagar, Kanpur.	(i) Shorthand Eng.	..	6 months	57	..
		(ii) Shorthand Hindi.	..	6 months	50	..
		(iii) Type Eng.	..	6 months	100	..
		(iv) Type Hindi	..	6 months	40	..
12.	Kanpur Commercial College, 125/1, C Block, Govind Nagar, Kanpur.	(i) Type English	..	6 months	60	..
		(ii) Type Hindi	..	6 months	60	..
13.	Janta Type Institute, Azad Nagar.	(i) Type Eng.	..	6 months	7	..
		(ii) Type Hindi	..	6 months	15	..
14.	Hind Commercial College, 59/2, Birhana Road, Kanpur.	(i) Type Eng.	..	6 months	250	..
		(ii) Type Hindi	..	6 months	250	..
		(iii) Shorthand Eng.	..	6 months	300	..
		(iv) Shorthand Hindi	..	6 months	200	..
15.	New Bharat Commercial Type College, Birhana Road, Kanpur.	(i) Type Eng.	..	6 months	10	..
16.	Bharat Typewriting Institute, Karachikana, Kanpur.	(i) Type Eng.	..	6 months	10	..
17.	Raj Commercial Institute, Karachikhana, Kanpur.	(i) Shorthand Eng.	..	6 months	10	..
		(ii) Type Eng.	..	6 months	23	..
18.	Rajendra Typewriting School, 74/109, Dhankutti, Kanpur.	(i) Type Eng.	..	6 months	50	..
19.	Ramkrishna Commercial Institute, Pukhrayan Distt., Kanpur.	(i) Type Eng.	..	6 months	56	..
		(ii) Type Hindi	..	6 months	56	..
		(iii) Shorthand Eng.	..	6 months	10	..
		(iv) Shorthand Hindi.	..	6 months	10	..

Appendix X—Contd.
(PART C)

1	2	3	4	5	6
20. Mishra Institute of Commerce, 104A/246, P. Road, Kanpur.	(i) Type Hindi	High School	6 months	34	..
	(ii) Type Eng.	„	6 months	34	..
	(iii) Shorthand Eng.	„	6 months	9	..
	(iv) Type Hindi	„	6 months	9	..
21. Bajpai Typing College, 104/278, P. Road, Kanpur.	(i) Type Hindi	„	6 months	10	..
	(ii) Type Eng.	„	6 months	10	..
	(iii) Shorthand Eng.	„	6 months	5	..
	(iv) „ Hindi	„	6 months	5	..
22. Mishra Commercial College, 104/309, P. Road, Kanpur.	(i) Type Hindi	„		30	..
	(ii) Type Eng.	„	6 months	30	..
	(iii) Shorthand Eng.	„	6 months	15	..
23. Srivastava Type Institute, 104/437, P. Road, Kanpur.	(i) Type Eng.	„	6 months	100	..
24. Swadesh Commercial College, 133/823, M. Block, Kidusinagar, Kanpur.	(i) Type Hindi	„	6 months	15	..
	(ii) Type English	„	6 months	20	..
	(iii) Shorthand Eng.	„	6 months	3	..
	(iv) Shorthand Hindi.	„	6 months	2	..
25. Nav Bharat Commercial College, 133/131, M. Block, Kidwainagar, Kanpur.	(i) Type English	„	6 months	60	..
	(ii) Type Hindi	„	6 months	20	..
	(iii) Shorthand Eng.	„	6 months	16	..
	(iv) Shorthand Hindi.	„	6 months	10	..
26. TPCO Type Institute, Khalasi Line, Kanpur.	(i) Type Hindi	„	6 months	6	..
	(ii) Type English	„	6 months	6	..
27. Premier School of Steno typing Flat No. 1, Navcen Market, Parade, Kanpur.	(i) Type Hindi	„	6 months	85	..
	(ii) Type Eng.	„	6 months	85	..
	(iii) Shorthand Eng.	„	6 months	40	..
	(iv) Shorthand Hindi.	„	6 months	40	..
28. New Premier School of Commerce Hata of Ram Mohan Shivala Road, Kanpur.	(i) Type Eng.	„	6 months	50	..
	(ii) Type Hindi	„	6 months	50	..
29. Type Centre, 40/67, Naya Chauk, Kanpur.	(i) Type Eng.	„	6 months	25	..
	(ii) Type Hindi	„	6 months	25	..
30. Bindu Type Instt., Harjindernagar, Kanpur.	(i) Type Eng.	„	6 months	6	..
31. Manoj Commercial Instt., 65, Vajikhara Harjindernagar, Kanpur.	(i) Type Hindi	„	6 months	5	..
	(ii) Type Eng.	„	6 months	7	..
32. Jai Bharat Type School, Harjindernagar, Kanpur.	(i) Type Hindi	„	6 months	5	..
	(ii) Type Eng.	„	6 months	5	..
33. Arun Commercial Instt., Harjindernagar, Kanpur.	(i) Type Eng.	„	6 months	4	..
34. T.C. Institute Typing House, 87/136, Deonagar, Kanpur.	(i) Type Hindi	„	6 months	14	..
	(ii) Type Eng.	„	6 months	14	..
35. Agnihotri Typing School, Kursawan, Kanpur.	(i) Type Hindi	„	6 months	12	..
	(ii) Type Eng.	„	6 months	12	..
36. Narain Type Institute, 89/209, Dalai-purva, Kanpur.	(i) Type Hindi	„	6 months	1	..
	(ii) Type Eng.	„	6 months	6	..
37. Public Commercial Institute, St. Xaviour Building, Ashok Nagar, Kanpur.	(i) Type Hindi	„	6 months	133	..
38. Gupta Type Institute, 118/574, Kaushal-puri, Kanpur.	(i) Type Hindi	„	6 months	6	..
	(ii) Type Eng.	„	6 months	17	..

Appendix X—Contd.
(PART C)

1	2	3	4	5	6
39. New Commercial Institute, Kaushalpur, Kanpur.	(i) Type Hindi (ii) Type Eng.	High school ,,	6 months 6 months	8 20	....
40. Standard Typing Institute, Kanpur	(i) Type Eng.	,,	6 months	20	..
TAILORING, EMBROIDERY, KNITTING & PAINTING					
1. Nari Kala Kendra, G. No. 5, Kanpur	(i) Tailoring (ii) Embroidery	VIII ,,	1 yr. 1 yr.	15 15	....
2. Shanti Mahila Shilp Kala Kendra, 120/ 186, Lajpat Nagar, Kanpur.	(i) Tailoring (ii) Modelling (iii) Painting	,, ,, ,,	Lit. Lit. Lit.	20 15 5	......
3. Jaspat Rai Nari Shilp Kala Kendra, Laj- pat Nagar, Kanpur.	(i) Tailoring (ii) Tailoring (iii) Tailoring Short Course	High School Jr. H.S. Lit.	2 yrs. 2 yrs. 6 months	40 30 50	......
4. Arjun Mahila Shilp Kala Kendra, Plot No. 115, O Block, Kidwainagar,	(i) Tailoring (ii) Embroidery (iii) Hand Embroidery (iv) Machine Knitting	VIII ,, ,, ,,	2 yrs. 2 yrs. 2 yrs. 2 yr.	25 25 25 25	........
5. Shukla Tailoring College, 118/625, Kaushal, puri, Kanpur.	Tailoring	Lit.	1 yr.	150	..
6. R.K. Shukla, Tailoring College, 121/630, Shastri Nagar Kanpur,	Tailoring	,,	1 yr.	35	..
7. Anand Tailoring College, Krishna Nagar, Kanpur.	Tailoring	,,	1 yr.	25	..
8. Omar Vaishya Shilp Kala Kendra, Birhan Road, Kanpur.	Tailoring	,,	1 yr.	20	..
9. Omar Vaishya Five Art School, Birhana Road, Kanpur.	Music	,,	1 yr.	200	..
10. Bhartiya Vidyalay Tailoring Instt., Naya- ganj, Kanpur.	Tailoring Tailoring	,, ,,	1 yr. 2 yrs.	50 50	....
11. Hind Training College, The Mall, Kan- pur.	Tailoring	Lit.	1 yr.	120	..
12. Kanpur Tailoring College, Chatampur, Dist. Kanpur.	Tailoring	VIII	1 yr.	25	..
13. Usha Mahila Shilp Kala Kendra, 83/1, Juli, Kanpur.	Tailoring	Lit.	6 months	27	..
14. Rajesh Shilp Kala Mandir, 111/112, Ashoknagar, Kanpur.	Tailoring	,,	1 yr.	50	..
15. Bhartiya Sangeet Kala Mandir, 128, M Block, Kidwainagar, Kanpur.	Music	,,	1 yr.	14	..
16. Babu Mahila Shilp Kala Kendra, 2/3, Begam Purwa (Ajitganj), Kanpur.	Tailoring Embroidery	Lit. ,,	1 yr. 6 months	20 7	....
17. Navcer Training College, 133/834, 'M' Block, Kidwainagar, Kanpur.	Tailoring (Gents) Tailoring (Women) Embroidery (Hand)	VIII ,, ,,	1 yr. 1 yr. 6 months	88 26 16	......
18. Mahila Shilp Kala Kendra, Block No. 79, Labour Colony, Bahu Purna, Kanpur.	Tailoring Embroidery (Hand)	,, Lit.	1 yr. 6 months	19 19	....
19. Nehru Vikas Mandal, 133/763, M Block, Naya Burwa, Kidwainagar, Kanpur.	Tailoring	,,	1 yr.	18	..
20. Adarsh Mahila Shilp Kala Kendra, Adarsh Vikas Mandal, Ajitganj, Kanpur.	Tailoring	,,	1 yr.	25	..
21. Shashtriya Sangeet Vidyapeeth, Arma- pore Estate, Kanpur.	(i) Music—Vocal Sitar Sitar Tabla (ii) Dance	,, ,, ,, ,, ,,	6 yrs. 6 yrs. 6 yrs. 6 yrs. 6 yrs.	25 3 5 9 18	..........

Appendix X—Contd.
(PART C)

1	2	3	4	5	6
22. Shamshed Ali Kadhai Kendra, Shivala Road, Kanpur.	Embroidery Machine	Lit.	6 months	5	..
23. Kadhil Kendra, Kotwali Market, Kanpur.	Embroidery Machine	..	6 months	8	..
24. Usha Mahila Shilp Kala Kendra, Harjender Nagar, Kanpur.	Tailoring Embroidery	..	6 months 6 months	N.A. ..	.. ..
25. New Diamond Shilp Kala Kendra, Jagai Purwa, Kanpur.	Tailoring	..	6 months	40	..
26. Adarsh Shilp Kala Kendra	Tailoring	..	6 months	30	..
27. Laxmi Silai, Kata and Embroidery School, Waston Road, Kanpur.	Tailoring Embroidery	..	6 months 6 months	8 8	....
28. Sudan Stri Silai, Katai and Embroidery, Weston Road, Kanpur.	Tailoring Embroidery	..	6 months 6 months	8 8	....
29. Ramkrishna Katai Kendra, 36/34, Patar Shivala Road, Kanpur.	Embroidery	..	6 months	4	..
30. Jayanti Tailoring College, 86/232, Deonagar, Kanpur.	Cutting & Tailoring	..	1 yr.	40	..
31. Govt. Labour Welfare Centre, Babupurwa, Kanpur.	Tailoring Embroidery Knitting	..	.. 6 months 6 months	20 6 N.A.	.. .. ..
32. Janta Vikas Mandal Mahila Silai and and Katai Training Centre, Sujatgang, Kanpur.	Tailoring Embroidery	..	6 months 6 months	15 5	....
33. Narani Tailoring School, 32/326, Munshi Purwa, Kakhana Road, Kanpur.	Tailoring Embroidery	..	6 months 6 months	30 10	....
34. Rashtriya Nari Kala Kendra, 110/61, R.K. Nagar, Kanpur.	Cutting & Tailoring	..	6 months	25	..
35. Sarvodaya Shilphala Kendra, 111/78, Ashok Nagar, Kanpur.	Tailoring & Painting	VIII	1 yr. 6 months	25 5	....
36. Tiwari Tailoring College, 109/61, Prem Nagar, Kanpur.	(i) Tailoring (ii) Embroidery	Lit. ..	1 yr. 6 months	30 30	....
37. Mahila Shilp Kala Kendra, 106/61, Premnagar, Kanpur.	Tailoring Embroidery	..	1 yr. 6 months	100 80	....
38. Dr. Chhattoo Ram Gidwani Nari Kala Kendra, 106/67, Gavohinagar, Kanpur.	Tailoring	VIII	1 yr.	45	..
39. Amar Mahila Shilp Kala Kendra, 109/405, Nehru Nagar, Kanpur.	Tailoring Embroidery	..	1 yr. 6 months	25 25	....
40. Ram Devi Shilp Kala Niketan, 107/158, Jawaharnagar, Kanpur.	Tailoring Embroidery	Lit. ..	1 yr. 6 months	20 20	....
41. Govt. Labour Welfare Centre, Jarib Ki Chauki, Kanpur.	Tailoring Embroidery	..	1 yr. 6 months	30 10	....
42. Pragati Sheel Shilp Ka Kendra, 563B, Railbazar, Kanpur.	Tailoring Embroidery	..	6 months 6 months	40 20	....
43. Nahiral Music School, Gandhi Chawk, Kanpur.	Music Vocal Instrumental Dance.	..	3 yrs. 3 yrs. 3 yrs.	100 75 100	......
44. Nari Kala Kendra, Block No. 12, Govind Nagar, Kanpur.	Tailoring Embroidery	..	1 yr. 6 months	12 4	....
45. Shyam Shiksha Kala Kendra, 120/165, Lajpatnagar, Kanpur.	Tailoring Embroidery	..	1 yr. 6 months	15 5	....
46. Vishnu, Shilp Kala Kendra, 140, AS Block, Jahi Colony, Kanpur.	Tailoring	VIII	1 yr.	99	..
47. M.K. Shilpkala Vidyalay, 95/96, Halsi Road, Kanpur.	Embroidery	Lit.	6 months	30	..
48. Usha Mahila Shilp Kala Kendra, 87/137 Deonagar, Kanpur.	Tailoring Embroidery	..	6 months 6 months	26 26	....

Appendix X—Contd.
(PART C)

1	2	3	4	5	6	
49	Mahila Shilp Kala Kendra, Arya Nagar, Kanpur.	Tailoring Embroidery Leather work (Pad, Cushion, Purse)	Lit. ,, ,,	6 months 6 months 6 months	N.A. ,, ,,	.. .. ..
OTHER PROFESSIONAL AND CLERICAL.						
1	Sanjay Punching Kurswan, Kanpur	Punching	High School	3 months	12	..
CHARTERED ACCOUNTANCY						
1	M. Ashraf & Co. (C.A.), 33/130-A, Moolganj, Kanpur.	Studentship	Graduate pref. with Commerce.	3-4 yrs.	4	..
2.	Tandan & Co. (C.A.), Lakshmi Building, 16/48, The Mall, Kanpur.	..	..		18	..
3.	Parivh and Jain (C.A.), 59/48, Birwana Road, Kanpur.	..	..	3-4 yrs.	10	..
4.	C.L. Kanodia & Co., 52/53, Birhana Road, Kanpur.	..	..	3-4 yrs.	2	..
5.	J.N. Sharma & Co., 59/4, Birhana Road, Kanpur	..	..	3-4 yrs.	19	..
6.	Pandey & Co., 24/24, Karachi Khana, Kanpur.	..	..	3-4 yrs.	2	..
7.	B.N. Chaturvedi & Co., 24/67, Birhana Road, Kanpur.	..	..	3-4 yrs.	7	..
8.	B.A. Kalra & Co., 59/41, Birhana Road, Kanpur.	..	..	3-4 yrs.	10	..
9.	S.R. Singh & Co., 58/47, Birhana Road, Kanpur.	..	..	3-4 yrs.	1	..
VEHICLE DRIVING						
1.	Krishna Motor Driving College, 128/52 C, Kidwainagar, Kanpur.	Motor Driving	..	3 months	100	..
2.	Hanumant Motor Driving Training School, 132/225, M.Kidwainagar, Kanpur.	(H.M.V.) (M.V.)	..	3 months 2 months	60 60	..
3.	Bombay Motor Driving School, Near Vivek Talkies, Kanpur.	Motor Driving (i) H.M.V. (ii) M.V.	.. ..	3 months 2 months	60 60	....
ENGINEERING AND OTHER						
1.	Radio Training Centre, Pheelkhana, Kanpur.	Mech. Radio & & Television	VIII	..	10	..
2.	Radio Television, Television Institute, 37/19, Mall Road, Kanpur.	..	H.S.	3 months	12	..
3.	Omar Vaishya Technical Institute, Birhana Road, Kanpur.	(i) Mech. Radio (ii) Mech. Trans- sistor.	I.Sc. H.S.	6 months 1 yr.	15 20	....

Appendix X—Contd.

(PART D)

Existing Training opportunities within the establishments

PRIVATE SECTOR

Name of establishment	OCC.CODE	Entry Educational qualifications code	Duration of course	Intake capacity	Remarks
1	2	3	4	5	6
1. M/s Annapurna Biscuit Mfg. Co., 84/67, G.T. Road, Kanpur	Clerk, General	Hr. Secondary	1 year	1	App. Act.
	Fitter, General	VIII & I.T.I.	1 year	1	App. Act.
	Electrician	Hr. Sec. Sec. I.T.I.	1 year	1	App. Act.
	Gen., Baker	H.S.	4 years	1	App. Act.
2. The Alheton West & Co. Ltd., Anwar Ganj, Kanpur	Clerk, General	Hr. Secondary	1 year	5	App. Act.
	Doffer, Spinning	V Fresher	6 months	2	App. Act.
	Weaver Powerloom	VII Fresher	6 months	5	App. Act.
	Stentering Machineman	V Fresher	6 months	2	App. Act.
	Carpenter	VIII. I.T.I.	2 years	1	App. Act.
	Turner	VIII. I.T.I.	1 year	1	App. Act.
	Fitter, General	VIII. I.T.I.	1 year	2	App. Act.
	Assembler	VIII. I.T.I.	1 year	2	App. Act.
	Textile Machinery Electrician, General	Hr. Sec. I.T.I.	1 year	1	App. Act.
	Boiler Attendant	H.S. I.T.I.	1 year	3	App. Act.
3. M/s Ajanta Press, Swaroop Nagar, Kanpur	Compositor hand	Hr. Secondary	3 years	1	App. Act.
	Machineman hand	Hr. Secondary	3 years	1	App. Act.
	Printing Book binder	VIII	3 years	1	App. Act.
4. Associated Industries, 39, Fazal Ganj, Kanpur	Clerk, General	Hr. Secondary	1 year	1	App. Act.
	Tool Makers	Hr. Secondary, I.T.I.	2 years	1	App. Act.
	Shaper	Hr. Sec. I.T.I.	1 year	1	App. Act.
	Mill Wright	Hr. Sec. I.T.I.	2 years	1	App. Act.
	Sheet Metal Worker General	Hr. Sec. I.T.I.	2 years	5	App. Act.
5. Ailga Rubber Works, 84/8, Fazal Ganj, Kanpur	Clerk, General	Hr. Secondary	1 year	1	App. Act.
	Fitter General	VII. I.T.I.	1 year	1	App. Act.
	Boiler Attendant	Hr. Secondary	1 year	3	App. Act.
6. Akash Rubber Works, 30, 31, Industrial Estate, Kanpur	Callender Machine Operator (Rubber)	Hr. Secoandary	3 years	1	App. Act.
7. Additional Chemical Co., F. No. 113, Factory Area, Kanpur	Attendant Operator	Hr. Secondary	3 years	2	App. Act.
8. Associated Wire Products, 100 T Factory Area, Kanpur	Black smith	VIII. I.T.I.	2 years	1	App. Act.
	Turner	VIII. I.T.I.	1 year	1	App. Act.
9. R.K. Wires Pvt. Ltd., 123/397, Factory Area, Fazal Ganj, Kanpur	Clerk, General	Hr. Secondary	1 year	1	App. Act.
	Fitter, General	VIII. I.T.I.	1 year	1	App. Act.
10. Agrico Industries, 119/433, Darsanpurwa, Kanpur	Moulder	VIII. I.T.I.	2 years	1	App. Act.
	Turner	VIII. I.T.I.	1 year	2	App. Act.
	Fitter, General	VIII. I.T.I.	1 year	2	App. Act.
	Sheetmetal Worker, General	VIII. I.T.I.	2 years	1	App. Act.
11. Amrat Industries Corporation, 40, Industrial Estate, Kanpur	Fitter, General	VII. I.T.I.	1 year	6	App. Act.
12. Anand Industrial Corporation, 119/419, Darsan Purwa, Kanpur	Turner	VIII. I.T.I.	1 year	1	App. Act.
	Fitter General	VIII. I.T.I.	1 year	1	App. Act.
13. B.I.C. Ltd., Kanpur Woolent Mill, Branch (Lal Iml), Civil Lines, Kanpur	Accounts Clerk	Hr. Sec. Com.	1 year	5	App. Act.
	Cashier, General	Hr. Sec. Com.	1 year	5	App. Act.
	Clerk, General	Hr. Sec.	1 year	3	App. Act.

Appendix X—Contd.
(PART D)

1	2	3	4	5	6	
13	B.I.C. Lt l., Kanpur Woolent Mill, Branch (Lal Imli), Civil Lines, Kanpur— <i>Contd.</i>	Store Keeper	Hr. Sec. Com.	1 year	2	App. Act.
		Selling Agent	Hr. Sec.	1 year	5	App. Act.
		Weaver Powerloom	VII	½ year	8	App. Act.
		Carpenter	VIII. I.T.I.	2 year	3	App. Act.
		Machinist General	VIII. I.T.I.	1 year	1	App. Act.
		Turner	VIII. I.T.I.	1 year	2	App. Act.
		Fitter	VIII. I.T.I.	1 year	4	App. Act.
		Assembler	VIII. I.T.I.	1 year	4	App. Act.
		Textile Machinery Electrician	H.S. I.T.I.	1 year	1	App. Act.
		General Wireman	VIII. I.T.I.	1 year	2	App. Act.
		Stone mason	Fresher	½ year	2	App. Act.
		Turbine Operator Hydal	H.S. I.T.I.	1 year	1	App. Act.
		Boiler Attendant	H.S. I.T.I.	1 year	2	App. Act.
14.	Brij Bihari Lal Triloki Nath 123/4 78, Iron Foundry & Engineering Work, Kalpi Road, Kanpur	Moulder	VIII I.T.I.	2 year	3	App. Act.
15	Bhatia Steel Works, 86, Factory Area, Kanpur	Fitter, General	VIII. I.T.I.	1 year	1	App. Act.
		Welder, Gas	VIII. I.T.I.	2 years	1	App. Act.
		Sheetmetal Workers General	VIII. I.T.I.	2 years	1	App. Act.
16	Bhati Safe Works, 47, Factory Area, Fazal Ganj, Kanpur	Fitter, General	VIII. I.T.I.	1 year	1	App. Act.
		Sheetmetal Worker, General	VIII. I.T.I.	2 years	1	App. Act.
17	B.T. Pal & Sons, H.O. 84/13, Factory Area, Kanpur	Sheetmetal Worker, General	VIII. I.T.I.	2 years	1	App. Act.
18.	Bharat Condit & Steel Works, 123/404, Factory Area, Fazalganj, Kanpur	Fitter, General	VIII. I.T.I.	1 year	2	App. Act.
		Welder, Gas	VIII. I.T.I.	2 years	2	App. Act.
19.	Bhartiya Engineering Works, 25, Industrial Estate, Kanpur	Sheetmental Worker,	VIII. I.T.I.	2 years	1	App. Act.
20	Bharat Industrial Corporation, 76/8, Factory Area, Kanpur	Fitter, General	VIII. I.T.I.	1 year	1	App. Act.
21.	Bhatia Restaurant, 96/12, Parade, Kanpur	Cook Institutional	Fresher	4 years	1	App. Act.
		Steward	VII Fresher	3 years	1	App. Act.
22.	The Central Press Pvt. Ltd., 123/443, Factory Area, Kanpur	Compositor	H.S.	3 years	1	App. Act.
		Machineman, Hand Printing	H.S.	3 years	2	App. Act.
23.	Charan Safe Works Pvt. Ltd., 6A, Industrial Estate, Factory Area, Kanpur	Clerk, General	H. Secondary	1 year	1	App. Act.
		Fitter, General	VIII. I.T.I.	1 year	2	App. Act.
		Welder gas	VIII. I.T.I.	2 years	1	App. Act.
		Sheetmetal Works, General	VIII. I.T.I.	2 years	7	App. Act.
24	Cossul Foundry Pvt. Ltd., 102, 104, Industrial Estate, Kanpur	Moulder	VIII. I.T.I.	2 years	1	App. Act.
25	Cassul & Co., Pvt. Ltd., Factory Area, Kanpur	Black smith	VIII	2 years	1	App. Act.
		Turner	VIII. I.T.I.	1 year	1	App. Act.
26	M/s Can Care Auto Carage, Chunniganj, Kanpur	Mechanic Automobile	VIII	2 years	1	App. Act.
27	Daily Action, Located in Danik Jaggan, Kanpur	Compositor	H. School	3 years	1	App. Act.
		Lino Operator	H.S.	3 years	1	App. Act.
28.	Mill Manager, Eligin Mill No. 1, Civil Lines, Kanpur	Textile technologist	Diploma in Engineering	1 year	3	App. Act.
		Moulder	VIII. I.T.I.	2 years	1	App. Act.
		Mech. maintenance	VII Fresher	6 months	3	App. Act.
		Weaver Powerloom	VII Fresher	6 months	11	App. Act.

Appendix X—Contd.
(PART D)

1	2	3	4	5	6
28. Mill Manager, Eligin Mill No. 1, Civil Lines, Kanpur—Contd.	Drawing and weaving operative	VII Fresher	6 months	5	App. Act.
	Carpenter	VIII. I.T.I.	2 years	1	App. Act.
	Mechanist General	VIII. I.T.I.	1 year	1	App. Act.
	Turner	VIII. I.T.I.	1 year	2	App. Act.
	Fitter, General	VIII. I.T.I.	1 year	4	App. Act.
	Electrician, General	Hr. Sec. I.T.I.	1 year	2	App. Act.
	Boiler Attendant	Hr. Sec. I.T.I.	1 year	2	App. Act.
29. M/s Eligin Mill No. 2, Cooperganj, Kanpur	Textile Technologist	Dip. in Engg.	1 year	3	App. Act.
	Accounts Clerk	Hr. Sec. Com. fresher	1 year	1	App. Act.
	Cashier General	Hr. Sec. Com. fresher	1 year	1	App. Act.
	Clerk, General	Hr. Secondary	1 year	9	App. Act.
	Textile Jobber	VII Fresher	6 months	3	App. Act.
	Inter tenter	V Fresher	6 months	5	App. Act.
	Piecers	V Fresher	6 months	6	App. Act.
	Doffer, Spinning	V Fresher	6 months	..	App. Act.
	Weaver, Powerloom	VII Fresher	6 months	7	App. Act.
	Drawing and weaving operative	VII Fresher	6 months	5	App. Act.
	Carpenter	VIII. I.T.I.	2 years	2	App. Act.
	Blacksmith	VIII. I.T.I.	2 years	1	App. Act.
	Mechanist, General	VIII. I.T.I.	1 year	2	App. Act.
	Turner	VIII. I.T.I.	1 year	2	App. Act.
	Fitter, General	VIII. I.T.I.	1 year	7	App. Act.
	Electrician, General	Hr. Sec. I.T.I.	1 year	2	App. Act.
	Wireman	VIII. I.T.I.	1 year	1	App. Act.
	Sheetmetal Workers, General	VIII. I.T.I.	2 years	1	App. Act.
	Boiler Attendant	Hr. Sec. I.T.I.	1 year	2	App. Act.
	30. E.M.C. Work Ltd., 123/485, Factory Area, Kalpi Road, Kanpur	Blacksmith	VII. I.T.I.	2 years	2	App. Act.
Mechanist		VII. I.T.I.	1 year	1	App. Act.
Turner		VII. I.T.I.	1 year	4	App. Act.
Fitter, General		VII. I.T.I.	1 year	3	App. Act.
31. M/s Ganesh Flour Mills Pvt. Ltd., Box 32, Kalpi Road, Kanpur		Fitter, General	VII. I.T.I.	1 year	2	App. Act.
	Electrician, General	Hr. Sec. I.T.I.	1 year	2	App. Act.
	Welder	VIII. I.T.I.	2 years	2	App. Act.
	Sheetmetal Works, General	VIII. I.T.I.	2 years	4	App. Act.
	Mason	..	3 years	1	App. Act.
32. Gopal Printing Press, 49/4, Parad, Kanpur	Boiler Attendant	VIII. I.T.I.	2 years	2	App. Act.
	Compositor, hand	Hr. Sec.	3 years	1	App. Act.
	Machineman, hand printing	Hr. Secondary	3 years	1	App. Act.
33. Gyan Vaishnu Hotel, 118/1, Kaushlpuri, Kanpur	Cook, Institutional	VII Fresher	4 years	1	App. Act.
	Steward Hotel	VII Fresher	3 years	1	App. Act.
34. Harnarayan Jaganath Iron Foundry, 124/479, Fazal Ganj, Kanpur	Moulder	VII. I.T.I.	2 years	1	App. Act.
35. Hindustan Engineering Works, 51, Factory Area, Kanpur	Blacksmith	VII. I.T.I.	2 years	1	App. Act.
36. M/s Hindustan Automobiles, 97, the Mall, Kanpur	Mechanic Automobile	VIII	2 years	1	App. Act.
37. Hotel De Dashmiri, Civil Lines, Kanpur	Steward, Hotel	VII Fresher	3 years	1	App. Act.
38. Himalaya Hotel, Maisten Road, Kanpur	Cook Institutional	VII Fresher	4 years	1	App. Act.
	Steward, Hotel	VII Fresher	3 years	1	App. Act.

Appendix X—Contd.
(PART D)

1	2	3	4	5	6
39. Indian Explosive Ltd., Panki, Kanpur	Draftsman, Mechanical	Hr. Sec. I.T.I.	1 year	1	App. Act.
	Mechanist, General	VIII. I.T.I.	1 year	1	App. Act.
	Turner	VIII. I.T.I.	1 year	1	App. Act.
	Miller	VIII. I.T.I.	1 year	1	App. Act.
	Electrician, General	Hr. Sec. I.T.I.	1 year	4	App. Act.
	Welder, Gas	VIII. I.T.I.	2 years	1	App. Act.
	Boiler Attendant	VIII. I.T.I.	2 years	2	App. Act.
	Maintenance (Chemical plant)	VIII. I.T.I.	2 years	19	Employers Own Programme
40. Indian Rolling Mills, 79, Fazal Ganj, Kanpur	Mechanic	VIII. I.T.I.	years	10	Employers Own Programme
	Turner	VIII. I.T.I.	1 year	1	App. Act.
41. Indian Engineering Const. Co., 64, Industrial Estate, Kanpur	Fitter, General	VIII. I.T.I.	1 year	1	App. Act.
	Electrician, General	Hr. Sec. I.T.I.	1 year	1	App. Act.
	Welder, Gas	VIII. I.T.I.	2 years	1	App. Act.
42. India forging Pvt. Ltd., 77-Fazalganj, Kanpur	Blacksmith	VIII. I.T.I.	2 years	2	App. Act.
	Tool Maker	Hr. Secondary	1 year	1	App. Act.
43. Indian Supplies Engg. Works, 84/22-Fazalgenj, Kanpur	Moulder	VIII. I.T.I.	2 years	1	App. Act.
	Turner	VIII. I.T.I.	1 year	2	App. Act.
	Fitter, General	VIII. I.T.I.	1 year	1	App. Act.
	Mill wright	VIII. I.T.I.	1 year	1	App. Act.
	Electrician, General	Hr. Sec. I.T.I.	1 year	1	App. Act.
44. Grey Foundry & Engg. Works, 84/108, G.T. Road, Kanpur	Fitter, General	VIII. I.T.I.	1 year	1	App. Act.
45. M/s Highland Motors, Arya Nagar, Kanpur	Mechanic, automobile	VIII	2 years	2	App. Act.
46. J.K. Jute Mill, Kalpi Road, Kanpur	Clerk, General	Hr. Secondary	1 year	4	App. Act.
	Weaver Powerloom	VII Fresher	6 months	5	App. Act.
	Carpenter	VIII. I.T.I.	2 years	2	App. Act.
	Turner	VIII. I.T.I.	1 year	1	App. Act.
	Fitter, General	VIII. I.T.I.	1 year	7	App. Act.
	Mechanic, Textile Machinery	VIII. I.T.I.	6 months	2	App. Act.
	Boiler Attendant	VIII. I.T.I.	3 years	2	App. Act.
	Moulder	VII. I.T.I.	2 years	3	App. Act.
47. J.K. Iron and Steel Co. Ltd., Kalpi Road, Kanpur	Carpenter	VIII. I.T.I.	2 years	1	App. Act.
	Black smith	VIII. I.T.I.	2 years	2	App. Act.
	Pattern Maker Metal, Foundry	VIII. I.T.I.	1 year	1	App. Act.
	Turner	VIII. I.T.I.	1 year	2	App. Act.
	Shaper	Hr. Secondary I.T.I.	1 year	1	App. Act.
	Fitter, General	VIII. I.T.I.	1 year	5	App. Act.
	Electrician, General	Hr. Sec. I.T.I.	1 year	1	App. Act.
	Welder, Gas	VIII. I.T.I.	2 years	1	App. Act.
	Compositor, hand	Hr. Secondary	3 years	2	App. Act.
	Machineman, hand	Hr. Secondary	3 years	3	App. Act.
	Printing				
Book Binder	VIII	3 years	1	App. Act.	
48. Job Press Laxmi Building, The Mall, Kanpur					
49. Jiwan Lall & Co., 78, Factory Area, Kanpur	Moulder	VIII. I.T.I.	2 years	1	App. Act.
	Turner	VIII. I.T.I.	1 year	1	App. Act.
	Fitter, General	VIII. I.T.I.	1 year	1	App. Act.
50. M/s J. Gupta Industries, Heera Ganj, Kanpur	Moulder	VIII. I.T.I.	2 years	1	App. Act.
	Turner	VIII. I.T.I.	1 year	1	App. Act.
	Fitter, General	VIII. I.T.I.	1 year	1	App. Act.

Appendix X—Contd.
(PART D)

	2	3	4	5	6	
51 J.K. Electronics Ltd., G.T. Road, Kanpur	Technician, Electrician	B.E. (Elec.)	1 year	2	App. Act.	
	Technician Mech. Engg.	Hr. Sec. Dip. (Mech.)	1 year	1	App. Act.	
	Technician Electrical	Dip. Elec.	1 year	1	App. Act.	
	Technician Electrical Engineering	Hr. Sec. Dip. (Elec.)	1 year	1	App. Act.	
	Electrical Technician	Hr. Sec. Dip. (Elec.)	1 year	1	App. Act.	
52. M/s Japsor Electricals Coop. Industrial Estate, Kanpur	Turner	VIII. I.T.I.	1 year	1	App. Act.	
	Fitter, General	VIII. I.T.I.	1 year	1	App. Act.	
	Electrician, General	VIII. I.T.I.	1 year	1	App. Act.	
53. J.K. Cotton Spinning & Weaving Mills	Fitter	VIII. I.T.I.	1 year	11	App. Act.	
	Electrician	Hr. Sec. I.T.I.	1 year	1	App. Act.	
	Weaver	VII Fresher	2 years	6	App. Act.	
	Turner	VIII. I.T.I.	2 years	2	App. Act.	
	Wireman	VIII. I.T.I.	1 year	1	App. Act.	
	Instrument Mech.	VIII. I.T.I.	2 years	1	App. Act.	
	Carpenter	VIII. I.T.I.	1 year	1	App. Act.	
	Boiler Attendant	VIII. I.T.I.	1 year	1	App. Act.	
	Clerks	Hr. Sec.	2 years	4	App. Act.	
	Store Assistant	Hr. Sec.	2 years	1	App. Act.	
	Doffer-cum-Piecers	VIII	2 years	3	App. Act.	
	Mech. Maintenance	VIII	2 years	1	App. Act.	
	Electrical Engg.	VIII	2 years	2	App. Act.	
	Mech. Engineer	B.E.	2 years	3	App. Act.	
	54. J.K. Satoh, Agricultural Machinery Ltd., Chakarapur, Kanpur	Mech. Engineer, General	B.Eng. Mech.	1 year	1	Govt. of India
Technician Mech. Engg.		Diploma	1 year	3	Govt. of India	
Turner		VIII. I.T.I.	2 years	10	App. Act.	
55. J.K. Manufacturers, Kalpi Road, Kanpur	Fitter	VIII. I.T.I.		4	App. Act.	
	Turner	VIII. I.T.I.		1	App. Act.	
	Carpenter	VIII. I.T.I.		1	App. Act.	
	Mechanist (Tex. Mech.)	VIII. I.T.I.		1	App. Act.	
	Boiler Attendant	VIII. I.T.I.		1	App. Act.	
	Weaver	VIII I.T.I.		3	App. Act.	
	Engg. (Mech.)			4	App. Act.	
56. Kanpur Textile, Cooper Ganj, Kanpur	Cashier, General	H.S. Com.	1 year	1	App. Act.	
	Clerk, General	H.Sc.	1 year	7	App. Act.	
	Intertenter	VII Fresher	6 months	2	App. Act.	
	Doffer spinning	VII Fresher	6 months	2	App. Act.	
	Weaver Powerloom	VII Fresher	6 months	5	App. Act.	
	Carpenter	VII. I.T.I.	2 months	1	App. Act.	
	Turner	VII. I.T.I.	2 months	2	App. Act.	
	Grinder, General	VII. I.T.I.	1 month	1	App. Act.	
	Fitter, General	VIII. I.T.I.	1 month	3	App. Act.	
	Assembler, Textile	VIII. I.T.I.	1 month	1	App. Act.	
	Machinery Electrician, General	H. Sc. I.T.I	1 month	1	App. Act.	
	Wireman	VIII. I.T.I.	1 month	1	App. Act.	
	Boiler Attendant	H.S. I.T.I.	1 month	2	App. Act.	
	57. Kripco Printers Co. Carton Makers, 97/18, Kais Thana Road, Talegla Mahal, Kanpur	Compositor, hand	H.S.	3 months	1	App. Act.
		Machineman, hand printing	H.S.	3 months	1	App. Act.
58. Krishna safe Works, 15, Industrial Estate, Kanpur	Sheet Dudal worker, General	VIII, I.T.I.	2 months	4	App. Act.	

Appendix X—Contd.
(PART D)

1	2	3	4	5	6	
59.	Kanpur Metal Products, 93B, Factory Area, Kanpur	Turner	VIII. I.T.I.	1 month	1	App. Act.
60.	Kailach Motor Service Station, G.T. Road, Kanpur	Mechanic automobile	VIII. I.T.I.	2 months	3	App. Act.
61.	Kanpur Auto Garage, Cheemni Ganj, Kanpur	Mechanic automobile	VIII. I.T.I.	2 months	2	App. Act.
62.	Khaygani Hotel Chunuieganj, Kanpur	Steward Hotel	VII Fresher	3 months	1	App. Act.
63.	Kanpur Restaurant, 59/44, Birhana Road, Kanpur	Cook Institutional Steward Hotel	VII Fresher	4 months	1	App. Act.
64.	Lohia Engg. Works, 73A, Factory Area, Kanpur	Engg. (Electric) Craftsmen Mechanical Moulder	VIII. I.T.I.	1 month 2 months	1 2	App. Act. App. Act.
		Turner	VIII. I.T.I.	1 month	3	App. Act.
		Fitter, General	VIII. I.T.I.	1 month	2	App. Act.
65.	Laxmi Rattan Mills, Kalpi Road, Kanpur	Electional Engineer Mech.	VIII. I.T.I.	1 month	2	Govt. of India
66.	Moti Lal Padam Pat Sugar Mills Co. Pvt. Ltd.	Fitter, General Electrician, General Boiler Attendant	VIII. I.T.I. H.Sc. I.T.I. H. School. I.T.I.	1 year 1 year 1 year	1 1 1	App. Act. App. Act. App. Act.
67.	M.P. Sugar Mills Co. Pvt. Ltd. Steel Foundry, Branch Guthaiya, Kanpur	Mechanist Turner Fitter, General Welder, Gas	VIII. I.T.I. VIII. I.T.I. VIII. I.T.I. VIII. I.T.I.	1 year 1 year 1 year 2 years	1 1 1 1	App. Act. App. Act. App. Act. App. Act.
68.	Moeran Metal Industries, 82/258A Juhi, Kanpur	Sheet Metal worker	VIII, I.T.I.	2 years	2	App. Act.
69.	Modern Engineering Works, 123/17 Pratap Ganj, Kanpur	Black Smith Turner	VIII. I.T.I. VIII, I.T.I.	1 year 1 year	1 1	App. Act. App. Act.
70.	Mukund Motors, 63/2, The Mall, Kanpur	Machanic, Automobile	VIII. I.T.I.	2 years	2	App. Act.
71.	Meghdoot Hotel, Meston Road, Kanpur	Clerk, General Cook, General Steward Hotel	H.Sc. Fresher VII	1 year 4 years 3 years	1 1 2	App. Act. App. Act. App. Act.
72.	M/s New Gupta Foundary and Engg. Works, Coop. Industrial Estate, Kanpur	Moulder Fitter, General	VIII. I.T.I. VIII. I.T.I.	2 year 1 year	2 2	App. Act. App. Act.
73.	Nirkari Engg. Work , 84/76, G.T. Road, Kanpur	Turner	VIII. I.T.I.	1 year	1	App. Act.
74.	National Tubing Co., 123/444, Factory Area, Fazalganj, Kanpur	Moulder Mechanist	VIII. I.T.I. VIII. I.T.I.	2 years 1 year	1 1	App. Act. App. Act.
75.	National Metallurging Corpo- ration, 19, Industrial Estate, Kanpur	Black Smith Mechanist Turner Shaper Fitter, General	VIII. I.T.I. VIII. I.T.I. VIII. I.T.I. VIII. I.T.I. VIII. I.T.I.	1 year 1 year 1 year 1 year 1 year	1 1 2 1 2	App. Act. App. Act. App. Act. App. Act. App. Act.
76.	M/s New Hotel Valerous, The Mall, Kanpur	Steward Hotel	VII Fresher	3 years	1	App. Act.
77.	Om Metal Works, 123/409, Factory Area, Fazalganj, Kanpur	Moulder Turner Sheet metal workers, General Moulder	VII. I.T.I. VII. I.T.I. VII. I.T.I. VII. I.T.I.	2 years 2 years 2 years 2 years	1 1 1 1	App. Act. App. Act. App. Act. App. Act.
78.	M/s Raj Foundary & Engg. Works, 87/362, G.T. Road, Kanpur					
79.	Moto Pumps & Hydraulics Coor. Industrial Estate, Kanpur	Turner Fitter, General	VIII. I.T.I. VIII. I.T.I.	1 year 1 year	1 1	App. Act. App. Act.

Appendix X Contd.
(PART D)

1	2	3	4	5	6
80. Rekhi Engg. Corp., 32/33, Industrial Estate, Kanpur	Die Maker	VIII. I.T.I.	1 year	1	App. Act.
	Mechanist	VIII. I.T.I.	1 year	1	App. Act.
	Turner	VIII. I.T.I.	1 year	1	App. Act.
	Fitter, General		1 year	1	App. Act.
81. Swadeshi Cotton Mills, Co., Ltd., Juhi, Kanpur	Accounts Clerk	H.S. Com.	1 year	3	App. Act.
	Cashier, General	H.S. Com.	1 year	1	App. Act.
	Clerk, General	H.Se.	1 year	6	App. Act.
	Store Keeper	H.Se. Com.	1 year	8	App. Act.
	Selling Agent	H.Se. Com.	1 year	4	App. Act.
	Inder tenter	V. fresher	6 months	4	App. Act.
	Piecer Mulepiecer	V. fresher	6 months	5	App. Act.
	Weaver Powerloom	VIII Fresher	2	15	App. Act.
	Turner	VIII. I.T.I.	1 year	3	App. Act.
	Fitter, General	VIII. I.T.I.	1 year	4	App. Act.
	Assembler, Textile	VIII. I.T.I.	1 year	5	App. Act.
	Machinery Electrician, General	H.Se. I.T.I.	1 year	4	App. Act.
	Wireman	H.Se. I.T.I.	1 year	1	App. Act.
	Welder	H.Se. I.T.I.	1 year	1	App. Act.
	Sheet metal worker, General	VIII. I.T.I.	2 year	1	App. Act.
	Stone mason	Fresher	3 year	1	App. Act.
	Boiller Attendant	H.S. I.T.I.	1 year	1	App. Act.
82. Singh Engineering Works Co. Ltd., G.T. Road, Factory Area, Kanpur	Mechanist General	VIII. I.T.I.	1 year	1	App. Act.
	Fitter, General	VIII. I.T.I.	1 year	1	App. Act.
	Electrician, General	H.S. I.T.I.	1 year	1	App. Act.
83. Sabarwal Metal Industries, 6, Industrial Estate, Kalpi Road, Kanpur	Welder, Gas	VIII. I.T.I.	2 year	1	App. Act.
84. Shri Krishna Industries, 4, Industrial Estate, Kanpur	Die maker		1 year	1	App. Act.
	Mechanist	VIII. I.T.I.	2 year	1	App. Act.
85. Singhania Industry, Factory Area, Kanpur	Moulder	VIII. I.T.I.	2 year	1	App. Act.
	Turner	VIII. I.T.I.	1 year	1	App. Act.
	Shaper	VIII. I.T.I.	1 year	1	App. Act.
	Fitter, General	VIII. I.T.I.	1 year	3	App. Act.
86. S.P. Engineering Corporation, 39, Fazalganj, Kanpur	Turner	VIII. I.T.I.	1 year	2	App. Act.
87. M/s Standard Carriage, 40/74, Pandu Nagar, Kanpur	Mechanic automobile	VIII	2 year	1	App. Act.
88. Station view Hotel & Restaurant Central Railway Station, Kanpur	Steward Hotel	VII fresher	3 year	1	App. Act.
89. M/s The Star Press, Chunniganj, Kanpur	Compositer, hand	H.S.	3 year	1	App. Act.
	Machineman, hand Printing	H.S.	3 year	1	App. Act.
	Book Binder	VIII	3 year	1	App. Act.
90. The Singh Engineering Works Pvt. Ltd., Factory Area, Fazalganj, Kanpur	Clerk, General	H.Se.	1 year	1	App. Act.
	Moulder	VIII. I.T.I.	2 year	2	App. Act.
	Turner	VIII. I.T.I.	1 year	1	App. Act.
	Shaper	VIII. I.T.I.	1 year	1	App. Act.
	Fitter, General	VIII. I.T.I.	1 year	2	App. Act.
	Electrician, General	H.Se. I.T.I.	1 year	2	App. Act.
	Welder, Gas	VIII. I.T.I.	2 year	1	App. Act.
91. Tirlok Nath & Sons, 123/4, 78-A, Kalpi Road, Kanpur	Moulder	VIII. I.T.I.	2 year	1	App. Act.
92. The Glass & Miniature bulb Industries, Fazalganj, Kanpur	Black Smith	VIII. I.T.I.	2 year	1	App. Act.
	Shaper	VIII. I.T.I.	1 year	2	App. Act.
	Grinder, General	VIII. I.T.I.	1 year	1	App. Act.
	Fitter, General	VIII. I.T.I.	1 year	2	App. Act.
	Welder, Gas	VIII. I.T.I.	2 year	2	App. Act.

Appendix X—Concl'd.
(PART D)

1	2	3	4	5	6
93. The India Thermal Corporation Ltd., 84/22, Factory Area, Kanpur	Clerk, General	H.Sc.	1 year	1	App. Act.
	Turner	VIII. I.T.I.	1 year	1	App. Act.
	Fitter, General	VIII. I.T.I.	1 year	3	App. Act.
	Welder, Gas	VIII. I.T.I.	2 year	1	App. Act.
94. The Janta Foundary & Engineering Works, 44, Industrial Estate, Kanpur	Moulder	VIII. I.T.I.	2 year	1	App. Act.
	Turner	VIII. I.T.I.	1 year	1	App. Act.
95. The Gas and Metal Operations 123/4, Fazalganj, Factory Area, Kanpur	Black Smith	VIII. I.T.I.	2 Year	1	App. Act.
	Shaper	"	1 Year	2	App. Act.
	Turner	"	1 year	1	App. Act.
	Grinder, General	"	1 year	1	App. Act.
	Welder, Gas	"	2 year	2	App. Act.
	Fitter, General	"	1 year	2	App. Act.
96. Truck Part of India Pvt. Ltd. 4, Industrial Estate, Near C.T.I. Kanpur.	Turner	"	1 year	1	App. Act.
97. The Malveeya Engineering Works, 84/5 Factory Area, Kanpur	Moulder	VIII. I.T.I.	2 year	2	App. Act.
	Blacksmith	"	2 year	1	App. Act.
	Turner	"	1 year	1	App. Act.
	Fitter, General	"	1 year	3	App. Act.
98. The Glass & Miniture Bulb Industry, 85/22, Factory Area, Kanpur	Electrician, General	H.Sc. I.T.I.	1 year	1	App. Act.
99. U.P. Allied Industries 5A Industrial Estate, Kanpur	Moulder	Hr. Sec. I.T.I.	2 year	2	App. Act.
100. M Viswa Engineering Works Lax Mipurwa, Kanpur	Moulder	Hr. Sec. I.T.I.	2 year	2	App. Act.
101. Kissal Electrical Pvt. Ltd. 31-B, Viveka Nandnagar, Kanpur	Electrician General	Hr. Sec. I.T.I.	1 year	1	App. Act.
102. United Auto Service Arya Nagar, Kanpur	Mechanic Automobile	VIII. I.T.I.	2 year	1	App. Act.
103. Winklers & Co., 46, Industrial Estate Factory Area. Kanpur	Die Maker	VIII. I.T.I.	1 year	1	App. Act.
	Fitter General	VIII. I.T.I.	1 year	1	App. Act.
104. The Muir Mills Ltd. Kanpur	Mech. Eng. General	B.E. (Mech)	1 year	2	Govt. of India
	Turner	VIII I.T.I.	1 year	1	App. Act. 1961
	Fitter, General	"	1 year	2	App. Act. 1951
	Electrician, General	H. Sec. I.T.I.	1 year	1	App. Act. 1961
	Wire man	VIII. I.T.I.	1 year	1	App. Act. 1961
105. New Victoria Mills Ltd. Kanpur	Clerk general	H.S.	1 year	8	App. Act 1961
	Mech.	V	6 months	9	App. Act 1961
	Machinist	V	"	4	
	Doffer	V	6 months	6	App. Act. 1961
	Turner	VIII. I.T.I.	1 year	2	App. Act 1961
	Fitter, general	"	1 year	2	App. Act. 1961
	Mech. textile machinery	"	1 year	12	App. Act. 1961
	Wireman	VIII. I.T.I.	1 year	2	App. Act. 1961
	Electrical Switch				
	Board Operator	H.S. I.T.I.	1 year	1	App. Act. 1961
	Boiler attendant	H.S. I.T.I.	1 year	1	App. Act. 1961

Appendix—XI

Job Specifications for skilled trades in various industries

Industry	Trade	Level	Prescribed minimum Educational qualification /experience			
			Educational	Technical	Experience	Job specialization
	2	3	4	5	6	7
Sugar	Fitter	High-Skilled	High School	ITI/App.	3—5 Years	Making parts as per drawing, taking measurements checking and adjusting of gauges and instruments and pipe fitting.
	Do.	Skilled	Do.	Do.	2-3 "	Pipe fitting and making parts as per drawing and general fitting jobs.
	Do.	Semi-Skilled	Do.	Do.	Nil	Rough fitting jobs and helping fitters.
	Electrician	Skilled	Do.	Do.	2-3 years	Wiring of 3 Phase & Single Phase motors starters, installation of Panels, maintenance of electrical equipment and installations.
	Turner	Skilled	Do.	Do.	Do.	Turning plane, taper, step and other intricate machine parts.
	Welder	Skilled	Do.	Do.	Do.	Welding of C.I. M.S. & Stainless steel parts and brazing non ferrous machine parts & repair jobs.
	Black-Smith	Skilled	Do.	Do.	Do.	Forging, bending, & hardening of parts able to work as per drawing.
	Carpenter	Skilled	Do.	Do.	Do.	Repair and maintenance work.
	Pump Driver/ Attendant	Skilled	VIII Class	Do.	Do.	Running of centrifugal pumps and attending minor faults and maintenance.
	Do.	Semi-Skilled	Do.	Do.	Nil	Running of centrifugal pumps and routine maintenance.
	Motor Helper	Semi-Skilled	Do.	Do.	Nil	Routine maintenance of motors fitted with different machine. Checking of connections & attending minor faults.
	Oil Man	Semi-Skilled	Do.	Nil	Nil	Oiling various machines daily as per instructions and clean the machines.
	Power House Helper	Semi-Skilled	Do.	ITI/App.	Nil	Cleaning and routine maintenance of Diesel generating sets, filling of oils and helping the drivers, etc. in running P.H.
Boiler Attendant	H. Skilled	High School	ITI/App.	3—5 Years.	Maintenance of log sheet and operation and routine maintenance of oil fired boiler.	
Switch Board Attendant.	Semi-Skilled	Do.	Do.	Nil	Maintain log sheet, adjust voltage current etc. operate various controls.	
Hydrogenated Oil's (Vanaspati)	Fitter	Skilled	VIII Class	I.T.I.	2 Years	Fitting and repair of machines. Maintenance work Assisting Mistries.
	Electrician	Skilled	High School	ITI/App.	Do.	Connection of 3 phase & single phase motors, starters repairing of motor starters. Erection of electrical motors panels etc. Fault location & rectification in Electrical equipments.
	Welder	Skilled	VIII Class	Do.	Do.	Welding of machine parts of O.I., M.S. Brass and brozo with gas & electrical process and brazing and fabrication work.
	Boiler Attendant	Skilled	High School	Apprenticeship Certificate	2-3 Years	Attending boiler, keeping log sheet operation and maintenance of Lankashire boiler.

Appendix XI—Contd.

1	2	3	4	5	6	7
Cotton Spinning & Weaving in Mills	Winder/ Reeler.	Skilled	V Class or less.	Nil	2-3 Years	Operation and control of various winding & reeling machines of cotton yarn. Starting & stopping of winding & reeling machines of hand and power driven. Able to operate Automatic Machines.
	Do.	Semi Skilled	Do.	Nil	6 Months	Operation & control of particular winding & reeling machines of hand and power driven.
	Doffer	Skilled	Do.	App/Ship preferred	2-3 Years	Replacing bobbins in creels & joining tail and leading ends. Threads yarns through guides-Managed 2.
	Do.	Semi-Skilled	Do.	Nil	6 Months	Replacing empty bobbins in creels and joining tail and leading ends. Threads yarns through guides-clears machines.
	Tenter	Skilled	Do.	App/Ship	2-3 Years	Fixing and replacing of bobbins and joining slivers through guides and controlling machines.
	Do.	Semi-skilled	Do.	Nil	6 Months	Fixing and replacing of bobbins and joining slivers.
	Sizer	Skilled	V Class or	Nil	2-3 Years	Operate sizing machines and controlling of machines as per designs.
	Do.	S. Skilled	Do.	Nil	6 Months	Operate sizing machines and controlling of machines as per designs.
	Warper	Skilled	Do.	Nil	2-3 Years	Operating warping machines and attending minor faults. Starting and Stopping of warping machines. Arranging of bobbins in creels.
	Do.	S. Skilled	Do.	Nil	6 Months	Operate warping machines. Starting and stopping of machines. Arranging bobbins in creels.
	Weaver	Skilled	VII Class or less	Nil	2-3 years	Preparing of looms, setting and adjusting of looms, weaving of cloth as per design. Attending minor faults in the machines.
	Do.	Semi Skilled	Do.	Nil	6 Months	Preparing of looms. Setting and adjusting of looms. Weaving of cloth. Cleaning of machines.
	Fitter	Skilled	VIII Class	ITI/App.	2-3 Years	Fitting and repair of machines. Maintenance work and assisting mistries.
	Do.	S. Skilled	Do.	Do.	Nil	General fitting works & maintenance of machines. Making simple parts.
	Electrician	Skilled	High School	Do.	2-3 Years	Maintenance of electrical motors, starters etc. Connection of motors, starters and erection of motors, panels etc.
	Do.	Semi. Skilled	Do.	Do.	Nil	Wiring and connection of motors, starters, maintenance of electrical equipments attending fuse off calls.
	Wireman	Skilled	VIII	Do.	2-3 years	Wiring of Machines-attending faults in wiring, temporary connection etc.
	Do.	S. Skilled	Do.	Do.	Nil	Wiring of Machines-Repairing of wiring faults-temporary wiring. Testing of wiring.
	Machinist	Skilled	Do.	Do.	2-3 Years	Make parts as per drawing in Shaper, Slotter, Milling Machine.
	Turner	Skilled	Do.	Do.	Do.	Preparing machine parts as per drawing and samples. Able to work upto an accuracy 0.025 mm. Operate different type of lathes.

Appendix XI—Contd.

1	2	3	4	5	6	7
Cotton Spinning & Weaving in Mills	Turner	S. Skilled	VIII Class	ITI/App.	Nil	As above but upto an accuracy of \pm 0.05 mm.
	Painter	Skilled	Do.	Do.	2-3 Years	Painting of Metallic and wooden items by handspray painting. Mixing of paints as per requirements.
	Welder	Skilled	Do.	Do.	Do.	Welding of C.T., M.I. and non-ferrous metal parts and brazing.
	Do.	S. Skilled	Do.	Do.	Nil	Welding of machines parts with arc and gas welding. Welding of C.I., M.S. and non-ferrous metal parts.
	Black-Smith	S. Skilled	Do.	Do.	Nil	Forging, bending, jumping work, and making spares as per drawing or samples.
	Carpenter	Skilled	Do.	Do.	2-3 Years	Repairing of doors, windows, wooden furnitures. Preparing of wooden parts for textile machines, peking etc.
	Textile Machinery (Mech)	H. Skilled	High Sch.	Do.	3-4 "	Assembling of textile machinery. Repair and maintenance of textile machines.
	Do.	Skilled	Do.	Do.	2-3 "	Fitting of textile machines & matintenance & repair of textile machines.
	Folder/Calender/Pressman	S. Skilled	V Class	Nil	Nil	Prepare finished cloth according to forms & operate calander machine.
	Diesel Mech.	Skilled	VIII Class	ITI/App.	2-3 Yrs.	Running of Diesel Engines & Diesel generating sets. Maintenance of Diesel sets and attending minor faults.
	Jobber	Skilled	Read & write	Nil	2-3 Years	Repair and Servicing of textile machines controlling of workers and distribution of work in the section.
	Drawer	Skilled	V Class or less.	Nil	6 Months	Drawing of yarn ends through healds and reeds. Set the yearn as per design.
	Smash Hand	Skilled	Do.	Nil	2-3 Yrs	Joining of Warp ends, drawing of ends through heald and reed, operate looms.
	Moulder	Skilled	VIII Class	ITI/App	2-3 Yrs	Preparations of sand and moulds and do casting in C.I. Brass, Aluminium, Bronze etc.
	Boiler Attendant	Skilled	High Sch.	App/Ship	2-3 Yrs.	Running and maintenance of coal fired boiler (Lanka shire). Keeping log sheet.
	Boiler Attendant	S. Skilled	High Sch.	App/Ship	Nil	Shovels coal into boiler, Adjust Steam Pressure, Rakes fin. Remove ash, help boiler attendant.
	Sheat Metal	Skilled	VIII Class	ITI/App.	2-3 Yrs.	Making Sheet metal items of textile machinery Making trays, ducts in M.S., G.I. Tin sheet and Aluminium.
	Swtich Board Attendant.	Skilled	High Sch.	Do.	2-3 Yrs.	Attend Generator & Motor Panels, Keep log sheet, Adjust Voltage, current etc.
	Motor Man	S. Skilled	VIII Class	Do. (Elect./W. Man)	Nil	Start and stop electric motors, Attend routine maintenance and minor faults in motors.
Air Condition Attendant	Skilled	High Sc.	Do.	2-3 Yrs.	Operates Air Conditioning Plants, Adjust temperature and control, humidity and attend minor repair of A.C. Plants.	
Jute Spining Weaving	Fitter	Skilled	VIII Class	I.T.I.	2-3 Yrs.	Preparation of machine parts as per drawing and samples. Maintenance and repair of machines.
	Electrician	Skilled	High Sdh.	Do.	Do.	Wiring of motors, starters, panels maintenance of electrical equipment and installation.
	Turner	Skilled	VIII Class	Do.	Do.	Preparation of machine parts as per drawing & samples.

Appendix XI—Contd.

1	2	3	4	5	6	7
Wool Spinning & Weaving in Mill.	Fenter	S. Skilled	V Class or less	Nil	6 Months	Fixing & replacing of bobbins and passing slivers through guides.
	Weaver	S. Skilled	VII Class or less	Nil	Do.	Setting & adjusting of looms, preparation of looms and weaving of woollen cloths.
	Knitter	S. Skilled	V Class or less.	Nil	Do.	Operates flat and circular knitting machines. Attend minor faults in the Machine.
	Fitter	Skilled	VIII Class	ITI/App.	2-3 Yrs.	Maintenance of machines. Preparation of spare parts as per drawing and samples.
	Wireman	Skilled	Do.	Do.	Do.	Wiring of machines and light circuits. Maintenance & rep. of electrical equipments and installations.
	Turner	Skilled	Do.	Do.	Do.	Preparation of parts of textiles machines as per drawing & samples.
	Miller	Skilled	Do.	Do.	Do.	Various jobs on universal milling machine.
	Mason	Skilled	VIII Class	ITI/App.	2-3 Yrs.	Repair work of building, bricklaying, plastering and concreting.
	Tailor	Skilled	Do.	Do.	Do.	Making of ready-made woollen garments.
	Carpenter	Skilled	Do.	Do.	Do.	Maintenance work, repair of furniture and packing work.
	Driver	Skilled	Do.	Do.	Do.	Driving of light and heavy vehicles jeeps, cars and trucks.
	Boiler Attendant	Skilled	High Sch.	App/Ship	Do.	Running and maintenance of coal fired boilers-maintenance of log book.
	Terpentine, Synthetic resin and plastic products.	Fitter	Skilled	High Sch. or below	ITI/App.	Do.	Maintenance of machine tools, preparing of spare parts as per samples & drawing Fabrication work. Repair of die pieces etc.
Electrician		Skilled	High Sch.	Do.	Do.	Wiring of machines, lighting circuits maintenance and repair of motors, starters etc. Maintenance of generating sets, controlling of panel boards etc.
Machinist		Skilled	VIII Class	Do.	Do.	Planing, shaping, slotting, milling grinding work etc. Make parts as per drawing, die making.
Turner		Skilled	Do.	Do.	Do.	Preparing of various types of jobs in lathe machine.
Welder		Skilled	High Sch.	Do.	Do.	Fabrication of frames, reclaiming of old parts, welding of C.I., M.S. Aluminium parts and brazing.
Sundry Hardwares	Fitter	Skilled	VIII Class	Do.	Do.	General bench fitting, Preparation of parts as per drawing. Maintenance work. Able to work upto an accuracy 0.025 mm.
	Do.	S. Skilled	Do.	Do.	Nil	General fitting work & maintenance of machines.
	Machinist	Skilled	Do.	Do.	2-3 Yrs.	Preparation of parts as per drawing-operate shaper, slotter & milling machines-operation of universal milling machine. Preparation of spares in lathe machine etc.
	Do.	S. Skilled	Do.	Do.	Nil	Preparation of parts as per drawing on shaper, slotter & milling machines.

Appendix XI—Contd.

1	2	3	4	5	6	7	
Heavy Electrical Machinery	Electrician	H. Skilled	High Sch.	ITI/App.	3-5 Yrs.	All types of wiring, connections of all types of motors, transformers, rectifiers etc., Rewinding of A.C. & D.C. machines, testing of high voltage equipments and their connections.	
	Do.	Skilled	Do.	Do.	2-3 Yrs.	All types of wiring, connection of motors transformers, rectifiers, fault location and repair of electrical equipments.	
	Do.	S. Skilled	Do.	Do.	Nil	T.R.S. and conduit wiring, connection of motors & starters and helping electricians.	
	Machinist	Skilled	VIII Class	Do.	2-3 Yrs.	Preparation of parts as per drawing-operate shaper, alloter, milling machines including universal milling machine.	
Electronic equipments such as radio etc.	Electrician	Skilled	High Sch.	Do.	3 Yrs	Wiring and maintenance of electrical equipments-wiring the components of tape recorders etc.	
	Electric Fitter.	Skilled	Do.	Do	Do.	Assembling of various components as per drawing-fitting of chasis and soldering etc.	
Repairing & servicing of motor vehicles.	Fitter	Skilled	VIII Class	Do.	2-3 Yrs.	Stripping & assembling and overhauling of Engines with Motor Mechanics.	
	Electrician	Skilled	High Sch.	Do.	Do.	Overhauling of Dynamos, starters, horns adjusting of regulators and re-winding of D.C. dynamo and stenters.	
	Machinist	Skilled	VIII Class	Do.	Do.	Grinding of Crank Shafts, cam shafts & cutting of gears, pressure plates, fly wheels etc.	
	Turner	Skilled	Do.	Do.	Do.	Turning of Brake drum and axles upto an accuracy of ± 0.025 mm.	
	Welder	Skilled	Do.	Do.	Do.	Welding of Bus body, Chasis and other fittings. Welding of C.I. Parts, reclaiming of parts and brazing.	
	Black Smith	Skilled	Do.	Do.	Do.	Straightening of chasis and other parts repairing of springs and fabrication work.	
	Carpenter	Skilled	Do.	Do.	Do.	Body building and Panel making.	
	Driver	Skilled	Do.	Do.	Do.	Driving of Heavy duty vehicles, tata, leyland etc. Driving of light duty vehicles.	
	Electro Plater	Skilled	Do.	Do.	Do.	Plating automobile parts, pipes, screws pins etc.	
	Upholster	Skilled	VIII Class	ITI/App	2-3 Yrs.	Upholstery work of seats, cabins and repair of the same.	
	Sheet Metal	Skilled	Do.	Do.	Do.	Bending of Tin Sheets, Aluminium Sheets and M.S. Sheets and fixing on the body. Dentremoving, hollowing wiring, revetting etc.	
	Motor Mech.	Skilled	Do.	Do.	Do.	Stripping & inspection, testing, overhauling of engines, injectors, governors, F.I. Pumps etc. Adjusting of brakes, grinding of tappets, pressure plates etc.	
	Construction & maintenance of buildings.	Mason	Skilled	No specific qualification	No specific qualification	3-5 Yrs.	Bricklaying, plastering and repair work.
		Driver	Skilled	Do.	Do.	2-3 Yrs & H.D. and L.D. driving licence.	Driving of Truck, jeep, Tractor, Road Rollers, Mincr Repair & maintenance of Petrol and diesel engines.

Appendix XI—Contd.

1	2	3	4	5	6	7	
Construction & maintenance of buildings.	Tracer D/Man (Mech)	S. Skilled	High Sch.	No specific qualification	Nil	Tracing of drawing and making Blue and Ammonia Prints.	
	Mali	Skilled	No Specific qualification	Do.	Do.	Gardening work, Graftin of plants, Treatment for decesses, seasonal plantation, application and types manure used.	
Generation & transmission of electric energy.	Electrician	Skilled	High Sch.	I.T. I.	1 Year	Connection of various high voltag ^c equipments, testing of H.V. equipments'	
	Wireman	Skilled	Jr. Do.	Do.	Do.	Connection of transformers, O.C.B's A.C.B's & high tension line construction fitting and connection of line protecting equipments.	
Distribution of electric energy.	Fitter	Skilled	VIII Class	Do.	1 year or more	Maintenance and repair work Preparation of spare partas as per drawing and samples.	
	Electrician	Skilled	High Sch.	Do.	Do.	Connection of various testing equipments and maintenance of the same.	
	Turner	Skilled	VII Class	I.T.I.	1 Year or more	Preparation of spare Parts as per drawing or Samples.	
	Welder	Skilled	Do.	Do.	Do.	Welding of M.S., Stainless steel parts brazing of brass & Copper piper etc.	
	Carpenter	Skilled	Do.	Do.	Do.	Maintenance and repair work and packing of fregile items.	
	Cable Joiner	Skilled	D.o	III/App.	1 Year	Joining of P.I.L.C.D.S.T.A. Cables with O.C.B.S., A.C.B's. and end boxes transformers and make straight & T. Joints.	
	Lineman	Skilled	D.o	Do.	Do.	Erection of poles, drawing of lines, connection of transformers, A.C.B.'s & O.C. B's maintenance and fault location of lines.	
	Sub-Station Attendant.	S.Skilled	Do.	Do.	Nil	Operation and maintenance of Sub-station equipment and control gears.	
	Armature Winder.	Skilled	High Sch.	Do.	1 Year	Rewinding of D.C. Armatures & A.C. Stators etc. & Coil winding etc.	
	Instrument Mechanic	Skilled	Do.	Do.	Do.	Preparation of Spare parts of machines and instruments.	
Purification & distribution of water.	Patrol man	S. Skilled	VIII Class	Do.	Nil	Patrolling of over head electrical lines.	
	Motor Mech.	Skilled	Do.	Do.	1 Year	Maintenance of Jeep, Tata & Leyland Trucks and Cars.	
	Electrician	Skilled	High Sch.	Do.	3 Year	Maintenance & repair of pump motor wiring and connection of motors, Starters etc.	
	Driver	Skilled	VIII Class	Do.	Do.	Driving of trucks and Lorries.	
	Pump Driver/Attendant	S.Skilled	Do.	Do.	Do.	Running of Turnine pumps & centrifugal pumps Cleaning of pumps and routine maintenance.	
	Pipe Fitter	Skilled	Do.	Do.	Do.	Fitting of water and sewage line pipes upto 24' dia and plumbing.	
	Do.	S.Skilled	Do.	Do.	Nil	Fitting of C.I.M.S., G.I. Pipes upto 5'' size and plumbing & helping the pipe fitter.	
	Telephone Communication	Wireman	Skilled	VIII Class	ITI	2-3 Years	Wiring of telephone circuits.
		Line Man	Skilled	Do.	App/Ship	Do.	Erection of telephone lines and connection of over head lines and boxes.
		Telephone Operator.	Skilled	High Sch.	Nil	Do.	Able to read, speak simple English and converse in English and Hindi. Oprate switch board and booking of calls.

Appendix IX—Contd.

1	2	3	4	5	6	7
Telephone communication - Contd.	Telephone Mech.	Skilled	Do.	Diploma		Assisting in installation and maintenance of telephone exchange and telephone connections.
	Fitter	H. Skilled	High Sch.	App/Ship	3-5 Yrs.	Bench fitting of precision parts-accuracy upto ± 0.025 mm. Making, fitting and checking of finished jobs.
	Do.	Skilled	VIII Class	III/App.	2-3 Yrs.	Bench fitting and maintenance work. Able to work upto an accuracy of ± 0.025 mm.
	Do.	S. Skilled	Do.	Do.	1-2 Yrs.	Bench fitting and maintenance work accuracy upto ± 0.025 mm.
	Electrician	Skilled	High Sch.	Do.	3 Yrs.	Wiring of motors and starters, transformers maintenance and repair of electrical equipments.
	Do.	S. Skilled	Do.	Do.	1-2 Yrs.	Wiring of motors, starters and connection of electrical equipments.
	Wireman	Skilled	VIII Class	Do.	3 Yrs.	Wiring of machines and lighting circuits and fault location & rectification in wiring.
	Machinist	H. Skilled	Do.	Do.	3-5 Yrs.	Work as per drawing in Shaper, Slotter, Milling machines; Grinding of tools. Checking with gauges, Marking and setting of jobs as per drawing.
	Do.	Skilled	Do.	Do.	2-3 Yrs.	Prepare jobs as per drawing in Shaper Slotter, Planer and Milling Machines.
	Do.	S. Skilled	Do.	Do.	1-2 Yrs.	Shaping, Planing & milling operations on C.I. & M.S. upto an accuracy of 0.05mm.
	Turner	Skilled	Do.	Do.	2-3 Yrs.	Preparing of parts as per drawing grinding of tools, operate capsten and Turret lathes.
	Millwright	Skilled	High Sch.	Do.	3 Yrs.	Maintenance and repair of all types of machine tools.
	Do.	S. Skilled	Do.	Do.	1-2 Yrs.	Maintenance of machine tools-Dismantling, Oiling & Greasing of machines.
	Grinder	Skilled	VIII Class	III/App.	3 Yrs.	Grind the flat and cylindrical jobs up to an accuracy of 0.003mm.
	Do.	S. Skilled	Do.	Do.	1-2 Yrs.	Grinding of jobs as per given drawing upto an accuracy of ± 0.008 mm.
	Miller	Skilled	Do.	Do.	3 Yrs.	Work as per drawing in horizontal, vertical & universal milling machine upto an accuracy of ± 0.025 mm.
	Do.	S. Skilled	Do.	Do.	1-2 Yrs.	Work as per drawing on the above machines upto an accuracy of ± 0.05 mm.
	Mason	Skilled	Do.	Do.	3 Yrs.	Bricklaying, Plastering, Flooring and Repair Work.
	Do.	S. Skilled	Do.	Do.	1-2 Yrs.	Bricklaying and Repair work.
	Painter	Skilled	Do.	Do.	1-2 Yrs.	Painting of machine parts, Jerry cans by hand and spraying process. Mixing of paints as per requirements.
	Do.	S. Skilled	Do.	Do.	1-2 Yrs.	Painting of machine parts, Jerry can etc.
	Tailer	Skilled	Do.	Do.	3 Yrs.	Mark and cut as per drawing cotton and canvas cloth.
	Do.	S. Skilled	Do.	Do.	1-2 Yrs.	Stitch the covers as per marking and cutting.

Appendix IX—Concl.

1	2	3	4	5	6	7
Telephone Communication —Contd.	Welder	Skilled	VIII class	III/AA.	3 Yrs.	Welding of C.I., M.S. Aluminium machine parts and brazing non-ferrous parts.
	Black Smith	Skilled	Do.	Do.	3 Yrs.	Forging and heat treating the parts.
	Carpenter	Skilled	Do.	Do.	3 Yrs.	Repair & Maintenance of doors, windows, wooden frames, making crates etc.
	Do.	S. Skilled	Do.	Do.	1-2 Yrs.	Repair & Maintenance work and helping the carpenters.
	Cable Jinter	H. Skilled	Read & write	Do.	3-4 Yrs.	Painting of U.G. Cables, Old and New.
	Driver	Skilled H. Duty and	Do. Light duty	Do.	3 Yrs.	Driving of H. duty and Light duty vehicles.
	Electroplater	Skilled	VIII Class	Do.	3 Yrs.	Plating of machine parts-Preparing plating solutions.
	Moulder	Skilled	Do.	Do.	3 Yr.	Preparing of sand, moulds & casting of C.I., Aluminium & non-ferrous metals.
	Boiler Attendant	H. Skilled	High Sch.	App/Ship	5 Yrs.	Operation & maintenance of Lankshire boiler. Maintenance of log sheets. Attend minor faults.
	Boiler Attendant	Skilled	High Sch.	App/Ship	3 Yrs.	Shevelling of coal & operate the boiler Helping the S.R. Attendant.
	Armature Winder	Skilled	VIII Class	III/App.	3 Yrs.	Winding of A.C. Machines single phase & 3 phase, testing & connecting also winding of D.C. Armature.
	Instrument Mechanic	Skilled	High Sch.	Do.	2-3 Yrs.	Repair and testing of Pneumatic, Hydraulic & Electrical instruments.
	Pattern maker	Skilled	VIII Class	III/App.	3 Yrs.	Prepare patterns as per drawing and repair of patterns.
	Lab. Attendant	Skilled	High Sch.	App/Ship	Nil	Helping to test the materials chemically and physically. Clean the lab equipments.
	Tool and Die Maker	Skilled	Do.	III/App.	3 Yrs.	Preparing of die as per drawing and repairing of die.
	C.I. Worker	Skilled	Do.	App/Ship	3 Yrs.	Degreasing and cleaning of metal parts chemically. Reclaiming of solutions. Preparation of chemical solution as per instructions.
	Tool Hardner	Skilled	VIII Class	..	2-3 Yrs.	Heat treating of tools of tool steel and special alloy steels.
	Tool Setter	Skilled	Do.	..	3 Yrs.	Set the machines as per instructions grind the tools and set the tools in Milling Machine etc.
	D/Man (Mech)	Skilled	High Sch.	III/App.	1-2 Yrs.	Drawing, Drafting & printing. Able to take dimension from samples and prepare drawing.
	Book Binder	Skilled	VIII Class	App/Ship	1-2 Yrs.	Binding of books and files.
	Compositor Hand	Skilled	High Sch.	Do.	1-2 Yrs.	Compose the given matter in Hindi and English. Make corrections. Set the composed matter in proper forms Remove the types after printing and arranging.

Sub. National Systems Unit,

National Institute of Educational

Planning and Administration

17-B, SriAurbindo Marg, New Delhi-110016

DOC. No.....D-2B2

Date.....30/4/87