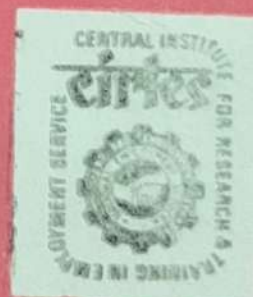




WORLD OF WORK SERIES

# APPRENTICESHIP TRAINING SCHEME

CAREER STUDY CENTRE,  
CENTRAL INSTITUTE FOR RESEARCH & TRAINING  
IN EMPLOYMENT SERVICE (D.G.E. & T.),  
MINISTRY OF LABOUR, GOVERNMENT OF INDIA,  
PUSA, NEW DELHI 110 012





# APPRENTICESHIP TRAINING SCHEME

## Introduction

Ever since India achieved Independence, the Nation plunged into a new era of Planned industrialisation. In order to bridge up the gap of more than 200 years of stagnation the country had resorted to the application of one of the most effective tools of economic progress i.e. industrial development through Five Year Plans. But the industrial development did not come by itself, the magnitude of other Socio-economic problems have to be solved before tangible results are achieved. The biggest of these problems was the problem of Human Resource Development, the qualitative and quantitative aspects of the persons engaged in production process. It is much easier to build Steel Plants, construct Dams and Bridges and manufacture Ships and Aeroplanes than to develop the human beings. Human beings are developed through a long process of education and training which is time consuming. Systematically training the manpower is vital for Industrial Development and Productivity. Keeping in view the fast technological changes that are taking place, it has become necessary to ensure that training keeps pace with technological developments.

One of the earliest National Training Scheme started by Directorate General of Employment and Training was the introduction of the Craftsmen Training Scheme for training of semi skilled and skilled workers. However, with the changing needs of the Industry the skills developed by the trainees in the Industrial Training Institutes were not sufficient and as such training on the job through formal Apprenticeship Training is the only answer. Keeping this in view the Apprentices Act 1961 was enacted in December 1961. The act was implemented with effect from January, 1963 and provides for the regulation and control of training of apprentices in industry and matters connected therewith. The Apprentices Act 1961 has the following objectives:—

- (i) To regulate the programme of training of apprentices in industries so as to conform to the syllabi.

period of training etc. prescribed by the Central Apprenticeship Council and

- (ii) To utilise fully the facilities available in industries for imparting practical training with a view to meet the requirements of skilled workers in the country.

Under the Apprenticeship Training Programme following Categories of Apprentices are covered:—

- (i) Trade Apprentices
- (ii) Graduate Engineering apprentice including sandwich courses students.
- (iii) Technician apprentices (for diploma holders in engineering discipline) including sandwich courses students.
- (iv) Technician (vocational) Apprentices for 10+2 vocational stream students.

The implementation at the Apprenticeship Training Programme relating to the training of trade Apprentices in the Central Sector is monitored by the Ministry of Labour (DGE&T) through six Regional Directorate of Apprenticeship Training located at Calcutta, Chennai, Faridabad, Hyderabad, Kanpur and Mumbai. The implementation in the State Sector & Private Sector in respect of training of trade apprentices is monitored by respective State Apprenticeship Advisers. The duration of the training for trade apprentices varies from 6 months to 4 years depending upon the requirement of the trade. Engagement of the apprentices is normally done twice a year during February/March and August/September. In 1973 the Apprentices Act 1961 was amended so as to bring within its purview the training of Graduate Engineers and Diploma Holder apprentices. The act was again amended in September, 1986 to include in its purview the students coming out from 10+2 stream of education called the Technician (Vocational) Apprentice. The act was further amended in 1997 to improve the performance of the scheme qualitatively and quantitatively by defining the definition of establishments, worker, giving flexibility to industries for engaging the apprentices etc.

The training of Graduate Technician and Technician (Vocational) apprentices is monitored by Ministry of Human Resources Development, Department of Education through four Regional Boards of Apprenticeship Training located at Calcutta, Chennai, Kanpur & Mumbai. But the overall responsibility for the Apprentices Act rests with the Central Apprenticeship Advisor in the Ministry of Labour.

### Basic Training

In case of fresher engaged as trade Apprentices the training consists of basic training followed by on-the-job or shop floor training according to the syllabus of trade. The courses of basic training are the same as for Industrial Training Institutes, in case there is a corresponding trade under the Craftsmen Training Scheme. There are, however other trades also which are not available under the Craftsmen Training Scheme such as Chemical, Printing and Hotel & Catering trades. basic training in such trades is imparted in Basic Training Centres managed by Central Government or respective State Government or concerned establishments.

A group of establishment can join together in establishing basic training centre where basic training to their apprentices can be imparted. Normally basic training is imparted at the nearest Industrial Training Institute in consultation with the Principal of that Institute, if facilities are available. The recurring costs (including the cost of stipends) incurred by an employer in connection with basic training imparted to trade apprentices is to be shared at the rate of 50 : 50 by the Establishment and appropriate Governments in case the total strength of the employees in an establishment is less than 250. In case of employers employing more than 250 workers, entire cost of basic training is borne by the employers. They will arrange basic training in a separate place, with class room facilities, but this should be imparted by trained instructors strictly as per the syllabi and operations prescribed.

### Shop Floor Training

This part of the training is to be given by the employers in their own workshops. Suitable arrangements, such as appointment of instructors, provision of machinery and equipment are to be made to impart shop floor training. Care must



be taken to ensure that all the operations pertaining to a particular trade and as listed in the syllabus are thoroughly learnt by the apprentice so as to make himself independent and competent in performing his job at later stage in his working life.

### Related Instructions

As apprentice while undergoing shop floor training in an establishment a course of theoretical related instructions appropriate to the trade as per the course approved by the Central Government, with a view to giving the apprentices such theoretical knowledge as he needs in order to become a skilled craftsmen.

Related instructions are to be imparted at the cost of appropriate Government at the rate of Rs. 30 per trainee per month. All facilities for imparting training such instructions are provided by the employer.

Every employer of the 218 notified industries under Apprenticeship Act is required to engage trade apprentices in accordance with the ratio of trade apprentices to workers other than the unskilled workers prescribed for each designated trade as well as the training facilities available for apprenticeship training in the designated trade. There are 128 designated trades in which apprenticeship training is imparted in industrial establishment of Central and State (See details at Annexure-I). The persons who have successfully completed institutional training in the appropriate trades or analogous trades with common course contents in the institutes affiliated by the National Council of Vocational Training are provided corresponding rebate in the period of Apprenticeship Training in the corresponding trade. The duration of training varies from 6 months to 4 years for different designated trades. The minimum age prescribed under the Rules is 14 years and there is no maximum age prescribed. About 25000 establishments under the public and private sector are now imparting training to apprentice throughout the country.

### Recruitment and Selection of Apprentice

The responsibility for engagement of apprentices solely lies with the establishment and concerned establishment may

invite list of candidates from any Channel such as, through advertisement, from ITI, employment exchanges.

Similarly the candidates can also contact the employer, ITI principal, employment exchanges for engagement as apprenticeship. The employers can also take the assistance of nearest Employment Exchange or the Principal of the Industrial Training Institutes for furnishing them the names of suitable candidates for enrolment as apprentices.

### Apprenticeship Contract

The entire training programme under the apprentices act is controlled under the provision of apprenticeship contract between the employer and the apprentices. The Apprenticeship contract is registered with concerned Apprenticeship Adviser and is a legal document. In case any dispute arises, the same is to be referred to the Apprenticeship Adviser whose decision will be binding on both the parties.

### Novation of Contracts

In case an establishment is closed, the apprentices of that establishment can be shifted to another establishment by the Apprenticeship Advisers and renewed contract is signed between new employer and apprenticeship trainee undergone by the apprentice with previous employer will be included in the period of apprenticeship to be undertaken with the new employer.

### Stipend

During the period of apprenticeship training the Graduate Engineer, Diploma Holders, Trade Apprentices and Technician (Vocational) apprentices are paid at the minimum prescribed rates. The current rates of stipends payable by the employers to the apprentices are given below:—

#### Trade Apprentices

During the first year of training	Rs. 580 p.m.
During the second year of training	Rs. 670 p.m.
During the third year of training	Rs. 770 p.m.
During the fourth year of training	Rs. 880 p.m.

*Graduate and Technician Apprentices*

(a) Engineering graduates	Rs. 1400 p.m. (for post institutional Training)
(b) Sandwich course students from degree institution	Rs. 1000 p.m.
(c) Diploma Holders	Rs. 1000 p.m. (for post institutional Training)
(d) Sandwich course students from Diploma Institutions	Rs. 810 p.m.
For Technician (Vocational) Trade for 10+2 Vocational stream	Rs. 770 p.m.

The stipends of the Graduate Engineers and Diploma Holders are shared equally between the Ministry of Education and the concerned employers. The stipend of all categories of apprentices is generally revised after every two years.

**Trade Test Certificate**

At the end of the training period every trade apprentices is required to appear in an All India Trade Test for apprentices conducted by the National Council for Vocational Training in the prescribed subject alongwith practical test. These tests are conducted twice a year i.e. in April and October. The apprentices who successfully pass this trade test are awarded a certificate by the National Council for Vocational Training which is a recognised certificate for the purpose of employment under the Government.

In order to promote a healthy competition among the apprentices as well as establishment, an All India Apprentices Skill Competition in 11 trades namely—Fitter, Machinist, Turner, Welder, Mechanic (Motor Vehicle), Electrician, Tool & Die maker, Electronics Mech., D/Mech. Mech., Mill Wright/ Mech. Maintenance, Instrument Mech. is held after every All India Trade Test. The apprentices securing the highest qualifying marks at the All India level is awarded a cash prize of Rs. 10000 and a Merit Certificate. The establishment whose apprentices secure the highest marks in all the 11 trades put altogether in a particular year is awarded a Running trophy and a certificate of Honourable Mention from the President

of India. The All India Skill competition are preceded by Regional Competitions in all the above trades and a Merit Certificate is awarded to the best establishments as well as to the best apprentice in each trade at the Regional level also.

**Obligation of Employers**

Under the Apprentices Act, 1961 the employers have the following obligations :—

- (i) To provide the apprentices with training in their trades in accordance with the provisions of this act and the rules framed there under.
- (ii) If any employer is not himself qualified in the trade, he should ensure that person possessing the prescribed qualification is placed in charge of the training of the apprentices.
- (iii) An employer is required to carry out all his obligations under the contract of Apprenticeship training.
- (iv) An employer is required to engage certain number of apprentices as fixed by the concerned Apprentices Adviser and he must ensure that the quota expected of him is filled up without any delay.
- (v) There is a reservation of Scheduled Castes and Scheduled Tribes and the employer must ensure that the reservations if applicable to his establishment, must be adhered to.

In the case of Graduate and Technician Apprentices, 88 subject fields in Engineering and Technology have been specified. The period of training for Graduate Technician and Technician (Vocational) Apprentices is one year. 60 subject fields have been specified for the benefit to pass out students from 10+2 vocational stream for training in Industry as Technician (Vocational) Apprentices. The Training for Graduate, Technician and Technician (Vocational) apprentices is organised in accordance with the training programme approved by the Directorate of Regional Board of Apprenticeship Training under Ministry of Human Resources Development.



## Details of Trades Under Apprenticeship Training Scheme

Sl. No.	Designated Trades	N.C.O. Code No.	Ratio of apprentices to workers other than unskilled workers	Period of training	Relevant I.T.I. trades	Rebate allowed in appren. training	Essential/Desirable Educational Qualifications
1	2	3	4	5	6	7	8
Group No. 1—Machine shop trades							
1	Fitter	842.10 842.15	1:7	3 years	1. Fitter (+Shipwright Steel) 2. Millwright Maintenance Mechanic 3. Tool and Die-Maker 4. Maint. Mech. (Textile Machinery) 5. Mech. (Dairy-Maintenance) 6. Fitter Structural 7. Boiler Attndt. 8. Motor Mech.—Body Builder	2 years 1 year 1 year 1 year 1 year 1 year 1 year 1 year	Passed 10th under 10+2 or its equivalent
					9. Millwright (Rolling Mills) 10. Mech. Mining 11. Rigger (Engg. & Chemical Industries) 12. Maint. Mech. (Leather Machinery)	1 year 1 year 1 year 1 year	
2	Turner	835.15	1:7	3 years	Turner	2 years	Passed 10th class under 10+2 system or its equivalent.
3	Machinist	835.10	1:7	3 years	Machinist	2 years	-do-
4	Machinist (Grinder)	836.10 836.25 836.30 836.35 836.40 836.55			1. Machinist (Grinder) 2. Turner 3. Machinist	2 years 1 year 1 year	Passed 10th with Science and Maths. 10+2 system Education or equivalent.
Group No. 2—Foundry Trades							
1	Pattern Maker	819.20	1:7	3 years	Pattern Maker	2 years	Passed 8th class Examination under 10+2 system of Education or its equivalent.
2	Foundryman	726.10 725.70	1:7	3 years	Foundryman	1 year	-do-
Group No. 3—Metal Working Trades							
1	Forger and Heat Treater	723.80 726.90 831.10 831.30 831.50	1:7	3 years	Forger and Heat Treater	1 year	Passed 10th class examination under 10+2 system or its equivalent.

1	2	3	4	5	6	7	8
2	Sheet Metal Worker	837.10	1:7	3 years	Sheet Metal Worker	1 year	Passed 10th class examination under 10+2 or its equivalent.
3	Welder (Gas and Electric)	872.10 872.20	1:7	2 years	Welder (Gas and electric)	1 year	Passed 8th class examination under 10+2 system of education or its equivalent.
4	Motor Vehicle Body Builder	815.10	1:7	2 years	1. Forger and Heat Treater 2. Sheet Metal	1 year 1 year	Passed 10th class examination under 10+2 system of Education or its equivalent.

Group No. 4—Electrical Trades

1	Electrician	851.10 851.30	1:7	3 years	Electrician	2 years	Passed 10th class Examination under 10+2 system with Science as one of the subjects or its equivalent.
2	Lineman	857.10	1:7	3 years	Wireman Electrician	1 year 1 year	Passed 8th class examination under 10+2 system of education or its equivalent.
3	Wireman	855.10	1:7	3 years	Wireman	2 years	Passed 10th class Examination under 10+2 system with Science as one of the subjects or its equivalent.
4	Auto Electrician	855.30	1:7	2 years	1. Mechanic (M.V.) 2. Electrician	1 year 1 year	-do-

5	Electrician Aircraft	855.20	1:10	4 years	Electrician	2 years	Passed 10th class Examination under 10+2 system of Education with Science and Maths as Subjects or equivalent.
6	Winder (Armature)	859.50	1:7	3 years	Electrician	2 years	-do-
7	Cable Joiner	857.30	1:2	3 years	Wireman	6 months	Passed 10th class examination under 10+2 system of Education with Science as a subject or its equivalent.
8	Electrician (Mines)	851.15	1:10	3 years	Electrician	2 years	Passed 10th class examination under the 10+2 system of Education with Science (Physics and Chemistry) as one of subjects or equivalent.
9	Electroplater	728.10	1:7	3 years	Electroplater	2 years	-do-

Group No. 5—Building And Furniture Trade

1	Carpenter	811.10 811.20	1:7	3 years	Carpenter	1 year	-do-
2	Plumber	871.10	1:3	3 years	Plumber	1 year	Passed 8th class examination under 10+2 system of Education or its equivalent.
3	Mason (Building Constructor)	951.20	1:7	1 year	Building Constructor	1 year	-do-

1	2	3	4	5	6	7	8
4	Furniture and Cabinet Maker	812.10 812.20	1:7	3 years	Carpenter	1 year	Passed 8th class examination under 10+2 system of Education with Science as subject or its equivalent. Desirable : Passed in 10th class
5	Sports Goods Maker (Wood)	819.70	1:5	2 years	Sports Goods Maker (Wood)	1 year	Passed 8th class examination under 10+2 system or Education or its equivalent.
Group No. 6—Maintenance Trade							
1.	Millwright Maintenance Mechanic	845.63	1:7	3 years	1. Millwright Maintenance Mechanic	2 years	Passed 10th class examination under 10+2 system of Education with Science and Maths as subject or its equivalent.
2	Mechanic Maintenance (Textile Machinery)	845.63	1:7	3 years			Passed 10th class examination under 10+2 system of education with Science (Physics and Chemistry) subject or its equivalent.
3	Mechanic Maintenance (Chemical Plant)	845.53	1:7	3 years	Mechanic Maintenance (Chemical Plant)	2 years	Passed 10th class examination under 10+2 system of Education with Science & Maths as subjects or its equivalent.
4	Mechanic (Dairy Maintenance)	845.55	1:7	3 years	1. Fitter 2. Tool & Die Maker 3. Ref. and Air-conditioning Mechanic	1 year	-do-
5	Mechanic Sewing Machine	945.82	1:4	1 year	Fitter	6 months	Passed 10th class examination under 10+2 system of Education or its equivalent.
6	Mechanic (Mining Machinery)	845.60	1:10	3 years	Fitter	1 year	Passed in 10th class examination with Science (Physics and Chem.) as subject under 10+2 system or its equivalent.
Group No. 7—Precision Machining Trades							
1	Tool and Die-Maker (Die & Moulds)	833.10 833.40	1:2	4 years	1. Tool and Die-Maker	2 years	Passed 10th class examination under 10+2 system of Education with Science and Maths as subjects or its equivalent.
					2. Fitter	1 year	
					3. Turner	1 year	
					4. Machinist	1 year	
					5. Machinist (Grinder)	1 year	
2	Tool and Die-Maker (Press Tools, Jigs & Fixture)	833.10 833.41	1:2	4 years	-do-	-do-	-do-
3	Plastic Mould-Maker	833.40 901.30	1:7	4 years	1. Tool and Die-Maker 2. Fitter	2 years 1 year	-do-
Group No. 8—Instrument Trades							
1	Instrument Mechanic	841.15	1:3	3 years	Instrument Mechanic	2 years	Passed 10th class examination under 10+2 system of Education with Science as one of the subjects or its equivalent.

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1	2	3	4	5	6	7	8
2	Mechanic (Instrument Aircraft)	841.15	1:10	4 years	Instrument Mechanic	2 years	Passed 10th class examina- tion under 10+2 system of Education with Science and Mathematics as subjects or its equivalent.
3	Mechanic Watch and Clock	841.10	1:3	3 years	Mechanic Watch and clock	2 years	Passed 10th class examina- tion under 10+2 system of Education or its equivalent.
Group No. 9—Refrigeration and Air-Conditioning Trades							
1	Refrigeration and Air- Conditioning Mechanic	845.70	1:3	3 years	Refri. and Air-Condition- ing Mechanic	2 years	Passed 10th class exami- nation with Science (Physics and Chemistry) and Mathe- matics under the 10+2 system of education.
Group No. 10—Heat Engines Trades							
1	Mechanic Motor Vehicle	753.27	1:4	3 years	Mechanic (Motor Vehicle)	2 years	Passed 8th class examina- tion or its equivalent.
2	Mechanic (Diesel)	845.13	1:4	3 years	Mechanic (Diesel)	1 year	Passed 8th class examina- tion or its equivalent.
3	Mechanic (Tractor)	845.20	1:3	3 years	1. Mechanic (Tractor) 2. Farm Mechanic	1 year	Passed 8th class exami- nation or its equivalent. Desirable : Passed 10th class under the 10+2 system with Science as one of the subjects or its equivalent.

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4	Mechanic (Earth Moving Machi- nery)	735.41	1:1	4 years	1. Mechanic (Tractor) 2. Mechanic (Agricultural Machinery)	1 year	Passed 10th class examina- tion under 10+2 system of Education or its equivalent.
5	Mechanic (Marine Diesel Engines)	845.13	1:4	3 years	Mechanic Diesel	1 year	Passed 8th class examina- tion or its equivalent.
6	Driver-cum-Fitter	843.50 986.55	1:15	3 years	Mechanic (Motor vehicle)	1 year	Essential : Passed 2 Standard below SSLC or passed 8th class examination or its equiva- lent under 10+2 system of Education. Desirable : Passed 10th class examina- tion under 10+2 system of education or its equiva- lent. Passed 8th class examina- tion or its equivalent.
7	Auto Mechanic (Two Wheeler/ Three Wheeler)	843.20 843.30 843.50 843.60	1:4	2 years	Mechanic (Motor Vehicle)	1 year	
Group No. 11—Draughtsmen and Survey Trades							
1	Draughtsman (Civil)	030.20	1:10	3 years	Draughtsman (Civil)	2 years	Passed in 10th class exami- nation under 10+2 sys- tem with Science and Ma- thematics as subjects.
2	Draughtsman (Mecha- nic)	030.40	1:10	3 years	Draughtsman (Mech.)	2 years	-do-
3	Surveyor	028.10 037.10 037.20	1:14	3 years	Surveyor	2 years	-do-

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1	2	3	4	5	6	7	8
Group No. 12—Construction Trades							
1 Fitter Structural	874.65	1:7	3 years	Fitter		1 year	Passed in 10th class examination under 10+2 system with Science and Mathematics as Subjects
Group No. 13—Power Plant Trades							
1 Boiler Attendant	962.20	1:2	3 years	Fitter		6 months	-do-
2 Steam Turbine cum Auxiliary Plant Operator	961.30	1:4	3 years				Passed 10th class examination under 10+2 system of Education or its equivalent
3 Switch Board Attendant	961.50	1:4	3 years				Passed 10th class examination under 10+2 system of Education with Science or its equivalent.
Group No. 14—Printing Group of Trades							
(i) Type Setting Group							
1 Lino Operator	922.10	1:7	3 years	Hand Compositor		1 year	-do-
2 Mono Keyboard Operator	922.20	1:7	3 years	-do-		1 year	-do-
3 Mono Caster Operator	922.30	1:7	2 years	-do-		1 year	-do-
(ii) Photo Mechanic Group :							
1 Process Cameraman	926.10	1:5	3 years	—		—	Passed 10th class examination with Physics and Chemistry as subject under 10+2 system of Education or its equivalent.
2 Retoucher Lithographic	925.10	1:5	3 years	—		—	-do-
3 Engraver	926.50	1:5	3 years	—		—	-do-
(iii) Binding Group :							
1 Book Binder	927.10	1:5	2 years	Book Binder		1 year	Passed 8th class examination or under 10+2 system of Education or its equivalent.
(iv) Litho Offset Group :							
1 Plate Maker (Lithographic)	926.40	1:5	2 years	—		—	Passed 10th class examination under 10+2 system of Education with Physics and Chemistry as subjects or its equivalent.
2 Litho Offset Machine Minder	923.50 923.60	1:7	3 years	—		—	-do-
Group No. 15—Hotel and Catering Trades							
1 Cook (General)	520.20	1:5	3 years	Cook (Vegetarian)		1 year	Passed Matriculation or its equivalent or 10th class under 10+2 system of education.
2 Cook (Vegetarian)	520.20	1:5	1½ yrs.	—		—	-do-
3 Steward	521.40	1:5	1½ yrs.	—		—	Passed in Matriculation examination or its equivalent or 10th class under 10+2 system.
4 Baker and Confectioner	770.10	1:5	2 years	—		—	-do-
5 House Keeper	510.10	1:5	1½ yrs.	—		—	-do-
6 Hotel Clerk or Receptionist or Front Office Asstt.	352.10	1:5	1½ yrs.	—		—	Essential—Passed in Matriculation examination or its equivalent or the 10th class under 10+2 system.



1	2	3	4	5	6	7	8
Group No. 16—Textile Trades							
1 Weaver	755.50	1.50	6 months	—	—	—	Essential—Passed 8th class under 10+2+3 system of Education or have class below matriculation examination or its equivalent.  Desirable—Passed 10 class examination under 10+2 system of Education or its equivalent.
2 Doffer-cum-Picker	752.65 752.40	1.50	6 months	—	—	—	Essential—Passed 8th class or its equivalent.
3 Tenter (Drawing Speed Fly Frames)	752.10 752.15 752.20	1.25	6 months	—	—	—	-do-
4 Winder (Textile)	752.70	1.50	6 months	—	—	—	-do-
5 Knitter (Hosiery)	757.10 757.15 757.20 757.25 757.30	1.4	1½ yrs.	—	—	—	Passed 10th class examination under 10+2 system of Education or its equivalent.
6 Printing Textile	758.30 758.32 758.34	1.10	6 months	—	—	—	Passed 8th class or its equivalent under 10+2 system of Education.

7 Cross Boy-cum-Warper	753.40 753.50	1.5	6 months	—	—	—	Passed 10th class examination under 10+2 system of Education or its equivalent.
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Group No. 17—Mining Trades

1 Sirdar (Colliery)	710.50	1.4	3 years	—	—	—	Passed 10th class examination under 10+2 system of Education with Science (Physics and Chemistry) as subject or its equivalent.
2 Shotfirer (Blaster, Mines)	714.30	1.7	2 years	—	—	—	Passed 10th class examination under 10+2 system of Education or its equivalent.
3 Mate (Mines)	710.40 715.90	1.10	3 years	—	—	—	Passed 10th under 10+2 system with Science (Physics and Chemistry) as one of the subjects or its equivalent.

Group No. 18—Chemical Trades

1 Assistant Operator (C.P.)	1.10	3 years	Assistant Operator (C.P.) 3 years B. Sc.	—	—	—	Passed 10th under 10+2 system with Science (Physics and Chemistry) as subjects or its equivalent.
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1	2	3	4	5	6	7	8	
	733 10, 733 15, 733 20 733 40, 733 45, 733 50 733 90, 734 10, 734 15 734 25, 739 20, 739 55 741 15, 741 20, 741 30 741 60, 741 70, 742 10 742 20, 742 30, 742 40 742 60, 742 90, 743 10 743 30, 743 40, 744 10 744 20, 744 30, 744 40 744 50, 745 10, 749 30 749 14, 749 42, 773 50 749 62, 749 64, 749 68 749 72, 749 74, 749 76 749 80, 749 82, 749 84 749 86, 749 88, 773 13 773 23, 773 40, 773 45 773 57, 773 60, 773 65 775 30, 775 35, 775 40 775 45, 775 65, 776 20 776 50, 893 10, 893 33 902 10, 902 20, 902 30 902 50, 903 10, 903 20						6 months	or Passed B.Sc. with Physics Chemistry & Mathematics as subjects.
2	Instrument Mechanic (C.P.)	841.20 841.70 851.20	1:3	3 years	Instrument Mechanic (Chemical Plant BSc)	2 years  1½ years	Passed 10th under 10+2 system with Science (Phys- ics and Chemistry) and as subject or its equiva- lent.  Passed P.Sc. with Physics and Chemistry as sub- jects.	
3	Laboratory Assistant (C.P.)	010.30 034.10 034.30 034.50 035.10 083.10	1:4	3 years	Laboratory (Assistant) B.Sc.	2 years 1½ years	-do-	
4	Fibre Reinforced Plastic Processor	901.15 901.20 901.25 901.30 901.35 901.40 901.45 901.50 901.55	1:5	2 years	Plastic Process Operator	1 year	Passed 10th class examina- tion under 10+2 system or its equivalent.	
5	Plastic Processing Op- erator	901.20 901.25 901.30 901.35 901.40 901.45 901.50 901.55 901.60 901.65	1:5	2 years	-do-	1 year	-do-	



1	2	3	4	5	6	7	8
<b>Group No. 19—Cutting and Tailoring Trades</b>							
1	Designer and Master Cutter	794.40 794.60	1:5	2 years	Cutting and Tailoring	1 year	Passed 10th under 10+2 or its equivalent.
2	Tailor (Men)	791.30 791.40 791.50	1:4	1½ years	Cutting & Tailoring	1 year	Passed 8th class examination or its equivalent.
3	Tailor (Women)	791.20	1:4	1½ years	-do-	1 year	-do-
4	Tailor (General)	791.10 791.90	1:5	2 years	-do-	1 year	-do-
<b>Group No. 20—Agriculture Trades</b>							
1	Mechanic (Agricultural Machinery)	345.20	1:7	3 years	1. Farm Mechanic	2 years	Passed 10th class examination under 10+2 system or its equivalent.
					2. Mechanic (Tractor)	1 year	-do-
2	Horticulture Assistant	053.20	1:7	2 years	—	—	Passed 10th class examination under 10+2 system of Education with science.
3	Stockman (Dairy)	082.10 082.20	1:7	2 years	—	—	Passed 10th class examination under 10+2 system of Education with Science and Mathematics or its equivalent.
4	Attendant Operator (Dairy)	776.10 776.20 776.30 776.40 776.50 776.60 776.70 776.90	1:7	3 years	—	—	

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5	Pump Mechanic	845.57	1:5	2 years	1. Pump Mechanic 2. Fitter	1 year 1 year	Passed 10th under 10+2 system with Science or its equivalent.
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**Group No. 21—Leather Crafts Trades**

1	Sports Goods Maker (Leather)	809.90	1:5	2 years	Sports Goods Maker (Leather)	1 year	Passed 10th class examination under 10+2 system or its equivalent.
2	Leather Goods Maker	809.10 809.20 809.30 809.40	1:7	2 years	Leather Goods Maker	1 year	Passed 8th class examination under 10+2 system or its equivalent.
3	Footwear Maker	801.10	1:4	2 years	Manufacture of Footwear	1 year	-do-
4	Finished Leather Maker	761.00	1:3	2 years	—	—	
5	Maintenance Mechanic for Leather Machinery	845.81	1:3	3 years	Fitter	1 year	Passed 10th under 10+2 system with Science (Physics and Chemistry) and Maths as subjects or its equivalent.

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**Group No. 22—Ship Building Trades**

1	Shipwright (Steel)	816.20	1:7	3 years	Fitter	1 year	Essential—Passed 10th under 10+2 system of education or its equivalent. Desirable—Passed SSLC with Science (Physics and Chemistry) and Maths or its equivalent or passed 10th class under 10+2 system with Science and Mathematics as subjects.
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1	2	3	4	5	6	7	8
2.	Pipe Fitter	871.20	1:7	3 years	Plumber	1 year	Passed 10th under 10+2 system with Science (Physics and Chemistry) and Mathematics or its equivalent.
3.	Rigger	972.10	1:7	2 years	—	—	Essential—Passed the 8th class exam. under 10+2 system or its equivalent.
4.	Gas Cutter	872.40	1:7	2 years	Welder (Gas and Electrical)	1 year	-do-
5.	Shipwright (Wood)	816.70	1:7	3 years	Carpenter	1 year	Essential—Passed 10th class examination under 10+2 system of education or equivalent. Desirable—Passed 10th under 10+2 with Science (Physics and Chemistry) & Mathematics or its equivalent.
<b>Group No. 23—Electronics Trades</b>							
1.	Mechanic Radio and Radar Aircraft	852.30 854.60	1:10	4 years	Mechanic Radio and T.V.	2 years	Passed 10th under 10+2 system with Science (Physics and Chemistry) and Mathematics or its equivalent.
					Electronics Mechanic	2 years	

2.	Electronics Mechanic	852.20	1:5	3 years	1. Electronics Mechanic 2. Mechanic (Radio and T.V.)	2 years 2 years	-do-
3.	Mechanic Television (Video)	854.20	1:7	3 years	1. Electronics Mechanic 2. Mechanic Radio and T.V.	2 years 2 years	-do-
<b>Group No. 24—Photography Trades</b>							
1.	Photographer	173.10	1:4	2 years	Photographer	1 year	Passed 10th under 10+2 system with Science (Physics and Chemistry) as one of the subjects or its equivalent.
<b>Group No. 25—Iron and Steel Trades</b>							
1.	Brick Layer (Refractory)	951.30	1:10	3 years	Mason (Building Constructor)	1 year	-do-
2.	Furnace Operator (Steel Industry)	721.55 721.60	1:15	2 years	—	—	Passed 10th under 10+2 system with Science (Physics and Chemistry) and Mathematics or its equivalent.
3.	Steel Melting Hand	723.15 723.20 723.30	1:15	2 years	—	—	-do-
4.	Mill Hand	722.15 722.25 722.35	1:15	2 years	—	—	-do-
5.	Crane Operator (Overhead Steel Industry)	973.45	1:15	2 years	—	—	-do-



1	2	3	4	5	6	7	8
Group No. 26—Beautician Trades							
1a	Beautician	560.30	1:3	2 years	—	—	Essential—Passed Matriculation examination or its equivalent or 10th class under 10+2 system with Biology as one of the subjects.  Desirable—Passed Higher Secondary or Pre-University Course or plus 2 of 10+2 system with Biology as one of the subjects.
2.	Hair Dresser	560.10 560.20	1:2	2 years	—	—	-do-
3.	Health and Slimming Assistant	089.50	1:3	2 years	—	—	-do-

Group No. 27—Glass and Ceramic Trades

1.	Ceramic Moulder	892.25	1:4	2 years	—	—	Passed 8th class of 10+2 system of education or 2 standard below 10th class or its equivalent.
2.	Ceramic Caster	891.20	1:4	2 years	—	—	
3.	Ceramic Kiln Operator	893.30	1:4	2 years	—	—	
4.	Ceramic Press Operator	892.60	1:4	2 years	—	—	
5.	Ceramic Modeller	892.10	1:4	2 years	—	—	

6	Ceramic Decorator	895.30	1:4	2 years	—	—	-do-
7	Moulder (Refractory)	892.65	1:4	2 years	—	—	
8	Enamel Glazer	895.50	1:4	2 years	—	—	
9	Insulator Maker/Machine Operator Ceramic)	899.44 899.45	1:7	3 years	—	—	Passed 10th class examination under 10+2 system with Science as subject or its equivalent. -do-
10	Optical Worker	891.48	1:7	3 years	1. Machinist 2. Millwright Mt co Mechanic 3. Turner 4. Fitter 5. Machinist (Grinder)	1 year 1 year 1 year 1 year 1 year	Passed 10th class under 10+2 system of Education or its equivalent.

Group No. 28—Painting Trades

1	Painter (General)	932.10	1:7	3 years	Painter (General)	2 year	Passed 8th class or its equivalent.
2	Painter (Marine)	931.20	1:7	2 years	Painter (General)	1 year	Passed 8th class examination under 10+2 system preferably with Maths. and Science or Two standard below.

Group No. 29—Computer Trade

1	Data Preparation & Computer Software	103.10 103.20	1:5	2 years	Data Preparation and Computer Software	1 year	Passed 12th class examination under 10+2 System of education with Science/Commerce as subjects or its equivalent (other thing being equal, preference will be given to candidates with higher qualification.)
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1	2	3	4	5	6	7	8
Group No. 30—Hi-Tech Trade							
1	Advanced Attendant Operator (Process)	730.20 740.10 740.90 770.90 900.10 730.90 740.20 770.40 890.20	1:7	1½ years	—	—	Passed B.Sc. with Physics and Chemistry as compulsory and Mathematics as desirable subject.
2	Operator cum Mechanic Pollution control Equipment	039.10 039.90	1:5	2 years	—	—	Passed Higher Secondary Examination with Physics, Chemistry and Biology under (10+2) system of Education or its equivalent.
3	Machanic Medical equipment for Hospitals and Occupational Health Centre	086.10 088.10 089.90 098.90	1:5	2 years	—	—	Passed Higher Secondary examination under (10+2) system of education with Physics, Chemistry and Biology.



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