

MAHARASHTRA STATE BOARD OF VOCATIONAL EDUCATION EXAMINATION, MUMBAI - 51

1	Name of Course	Certificate Course in Plate Making (406101)																																								
2	Max.Nos. of Student	25 Students																																								
3	Duration	6 Month																																								
4	Type	Part Time																																								
5	Nos Of Days / Week	6 Days																																								
6	Nos Of Hours /Days	4 Hrs																																								
7	Space Required	Theory Class Room – 200 sqft Workshop – 1000 sqft																																								
8	Entry Qualification	S.S.C. Appeared																																								
9	Objective Of Syllabus/ introduction	To get knowledge of Plate making																																								
10	Employment Opportunity	The trainee will be able to take jobs in related enterprise or with working experience will be in a position to work in his own venture.																																								
11	Teacher’s Qualification	Diploma in Printing or S.S.C. with Certificate Course in Printing or NCTVT Certificate holder with 3 years experience.																																								
12	Training System	<div>Training System Per Week</div> <table><tr><td>Theory</td><td>Practical</td><td>Total</td></tr><tr><td>6 Hours</td><td>18 Hours</td><td>24 Hours</td></tr></table>						Theory	Practical	Total	6 Hours	18 Hours	24 Hours																													
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13	Exam. System	<table><tr><th>Sr. No.</th><th>Paper Code</th><th>Name of Subject</th><th>TH/PR</th><th>Hours</th><th>Max. Marks</th><th>Min. Marks</th></tr><tr><td>1</td><td>40610111</td><td>Introduction of Plate Making</td><td>TH-I</td><td>3 hrs</td><td>100</td><td>35</td></tr><tr><td>2</td><td>40610121</td><td>Plate Making Technique</td><td>PR-I</td><td>6 hrs</td><td>200</td><td>100</td></tr><tr><td>3</td><td>40610122</td><td>Different types of Plate Making</td><td>PR-II</td><td>3 hrs</td><td>100</td><td>50</td></tr><tr><td></td><td></td><td>Total</td><td></td><td></td><td>400</td><td>185</td></tr></table>						Sr. No.	Paper Code	Name of Subject	TH/PR	Hours	Max. Marks	Min. Marks	1	40610111	Introduction of Plate Making	TH-I	3 hrs	100	35	2	40610121	Plate Making Technique	PR-I	6 hrs	200	100	3	40610122	Different types of Plate Making	PR-II	3 hrs	100	50			Total			400	185
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Theory

Plate Making

1. Brief history of printing, comparative analysis of different printing process.
2. Plate making – surface & deep-etch plates out line of chemicals & solutions used for plate making, use of whirler.
3. Plates – metals used – aluminium, zinc, copper. Properties, their handling care and use, presensitised plates.
4. Light sources-kinds, exposure-printing-down frame use.
5. Measuring gauges, hydrometer, Hygrometer, densitometer etc. their handling care and use.
6. Plate graining – equipment and materials used – quantity of the grain.
7. Lining up Table. Layout sheets – handling and use.
8. Simple imposing schemes with relation to folding schemes.
9. Modern developments in plate making – electronics devices for plate making, , CTP and developments.
10. General care and maintenance of machinery, equipment and other materials of a plate making section.
11. Causes and remedies.
12. Safety precautions, safety hazards, preventive method.

Practical -I

Plate Making Technique

1. Introduction to image carriers for offset process & compression with other image carriers.
2. Handling & care of material of material & equipment for lithographic plate making & offset.
3. Printing surfaces: Metals-zinc aluminum & copper, their care handling & use.
4. Graining of metal plates-equipment & material use, plate graining machine handling & care.
5. Solution for plate making-surface & deep-etch plates-material used, reproduction & handling.
6. Plate making-equipment & materials, whirler, printing down frame, lining up table etc. their use.
7. Plate making-surface & deep-etch, materials commonly used- coating of solution etches, counter etches, solvents gum, washout solution, powder etc., their preparation handling care& use. (Wipe on plates, deep-etch, presensitised etc.)

Practical -II

Different types of plate making

1. Printing surfaces : Metals-zinc aluminum & copper, their care handling & use.
2. Solution for plate making-surface & deep-etch plates-material used, reproduction & handling.
3. Plate making-surface & deep-etch, materials commonly used- coating of solution etches, counter etches, solvents gum, washout solution, powder etc., their preparation handling care& use. (Wipe on plates, deep-etch, presensitised etc.)
4. Light sources – exposure time, image formation, treatment & control.
5. Step & repeat process – kinds handling & care.
6. Safety precaution – safety hazards – preventive measures.

List of Tools and Equipment for Offset Machine Plate Maker

Sr. No.	Description of items
1.	Acralic sheets
2.	Lining up table of appropriate size
3.	Printing down frame with built in mercury vapour lamps
4.	Glass jar/container (For keeping / missing solution)
5.	Measuring cylinder – different sizes
6.	Enamel / Glass funnel
7.	Hydrometer for measuring Beaume
8.	Timer
9.	Sink (180 x 750 cm x 20cm)
10.	Room Thermometer
11.	Hygrometer
12.	Steel Rule graduated
13.	Micrometer (0-25mm), 25-50mm)
14.	Vernier Caliper
15.	Spatula-long & small size
16.	Image remover
17.	Densitometer
18.	Hand gloves
19.	Magnifying Glass (X 8)
20.	Fire Extinguisher
21.	Ink slab 50 x 50 cm
22.	Development Tray
23.	Plate drying cabinet 30 x 40 cm with 2.5 cm slots
24.	Re-touching table – 50 x 75 cm
25.	Magnifying glass
26.	Heater 1500 watt
27.	Rubber Squeezer 30 cm
28.	Plate storage Cabinet

RAW MATERIALS	
1	Pre sensitized (PS) plates of different sizes
2	Pre grained plates
3	Wipe on plates
4	PS developer, correcting liquid solution, Brush, Acetate lay out sheets.

BOOKS LIST:-

Sr.No.	Description of items
1	Offset stripping black and white
2	A manual for film planning
3	Lithographers manual
4	Deepetch plate making G.A.T.F.,
5	A handbook for printing and packaging technology(Biswanath Chakravarty)
6	Albumen plate making G.A.T.F.,Formulari G.A.T.F.