MAHARASHTRA STATE BOARD OF VOCATIONAL EXAMINATIONS, MUMBAI 51.

1	Name of Syllabus	**Certificate Course in Weaving Mechanic (402208)**
2	Max. No's of Student	25 students.
3	Duration	1 year
4	Type	Part Time
5	No Of Days / Week	6 Days
6	No Of Hours /Days	4 Hrs
7	Space Required	Workshop = 800 Sq feet Class Room = 200 Sq feet TOTAL = 1000 Sq feet
8	Entry Qualification	S.S.C. appeared
9	Objective Of Syllabus/ introduction	I) To impart the skill of textile designs. ii) To provide experimental knowledge of waves designs. iii) To train Rural youth to create the capabilities for self employment and wage employment. iv) To maintain and upgrade the traditional arts/ skills in textile designs.
10	Employment Opportunity	a) Self Employments : - May start small business in the field of Textile designs. b) Wage Employment : - 1) May work as a skilled designer in a small scale industry or textile mills. 2) May work as a card punching operator, May work as a skilled labour in spinning Mills.
11	Teacher's Qualification	Diploma in Textile Mfg. OR Certificate course in Textile weaving & Three years experience.
12	Training System	**Training System Per Week** Theory: 06 Hours; Practical: 18 Hours; Total: 24 Hours
13	Exam. System	

Sr. No.	Paper Code	Name of Subject	TH/PR	Hours	Max. Marks	Mini. Marks
1	**40220811**	Weaving Mechanism	TH-I	3 hrs.	100	35
2	**40220812**	Textile Design & Fabric Structures	TH-II	3 hrs.	100	35
3	**40220813**	General Study & Calculation	TH-III	3 hrs.	100	35
4	**40220821**	Weaving Practical - I	PR-I	3 hrs.	100	50
5	**40220822**	Fitting Practical - II	PR-II	3 hrs.	100	50
6	**40220823**	Textile Design & Fabric Structures Practical - III	PR-III	3 hrs.	100	50
		Total			**600**	**255**

Theory - I Weaving Mechanism

1) Plain loom :- Study of primary Motions, study of secondary & ancillary Motions, Cloth defects in Plano loom Reasons & Remedies

2) Aura Loom :- Main features of Auto Loom, Study of Cop changing Mechanism, Modern Developments, in Auto Looms.

3) Dobby Loom : Study of various types of bobbies, single lift & Dabble lift Dobbins, Timing setting & Tuning of various Mechanisms on Dobbins, study of pegging Method on right hand & left hand dobby.

4) Drop Box :- Study of various Drop Mechanism, Basic study of Timing setting & Tuning of Drop Box Mechanism, Defects in Drop motion, study of Design pattern (Chain) Preparation.

5) Jacquard :- Study of various types of Jacquard, Introduction of card cutting & lacing & Terry towel motion.

Theory - II - Textile Design & Fabric Structures

1) Textile Designs & Fabric Structure :- Study of basic Designs as matt, Rib, Various types of Twills, satin & sateen, Honey Comb, Huck –a- Back, Diamond Waves, introduction of jacquard Design preparation, Method of cloth analysis, presentation of cloth Designs on Graph paper.

Theory - III - General Study & Calculation

1) calculation :- Study of carious calculations regarding loom speed, Loom production, efficiency. Calculate Yarn Count, Weight of the Yarn, study of carious Yarn Numbering systems as English & Metric system.

2) General Study :- Brief study of Electrical & Mechanical Manteca, Handing of various Electrical & Mechanical tools, Study of filling drilling, Tabooing, Threading , Sawing Cutting ,& Chipping.

Practical - I Weaving

1	To study name of the part of different looms & setting of different looms.
2	Setting of the tappet shedding.
3	Setting of the picking tappet.
4	Setting of the picking stick.
5	Setting of the slay fork motion.
6	Setting of the weft fork motion.
7	Setting of the Seven wheel take up motion.
8	Setting of the loose & fast reed motion.
9	Setting of the let off, break & temples.
10	Practice of weaving cloth on plain, doubly, jacquard, terag, towel, drop box looms.
11	Skill in pick finding technique.
12	Study and Practice to control tension on terry looms.
13	Study of setting beating on mechanism on terry loom.
14	To calculate the expected production on depending upon speed of P.P.I. in the cloth of different loom.
15	To study Eccles drop box motion.

Practical- II Fitting

1) Refection of all sorts of Looms :-
   Ordinary Loom, Auto loom including their foundation and necessary driving arrangements, Study of Alignment and leveling of the machine.
2) Mounting of jacquard, Dobbins & Drop Box.
3) Fitting of ancillary Motions such as warp stop Motion, Twill Tappet Motions, Selvedge Motions, split Selvage Motions, Terry pile Motions.
4) Fitting of drop Boxes.
5) Setting & Tuning of Various Mechanism of ordinary & Auto Looms, Dobby, Drop Box and jacquards.
6) To prepare pegging lattice for Dobby & harness of jacquards Mounting of the same, to carry various designs for weaving on loom.
7) To prepare card pattern chains for the given pattern chains for the given pattern including card sacking system of Drop Box, Card cutting & lacing of jacquard cards.
8) To attend the cloth faults.
9) Loom getting practices for plain loom & Auto loom.
10) Fitting practice, Handling of fitters tools , practice of filing, drilling, tapping threading, sawing, cutting & chipping.
11) Use of various gauges of auto looms.
12) Connection of AC Motor switch, starter & Fuses, Single phase, Connection of three phase AC Motor with starter switch & Fuses.
13) Study of practical's of shock treatment and First Aid.
14) Earthling test & Earthling – Testing by Mugger lamp.
15) Speed control of Induction Motor.

Practical- III - Textile Design & Fabric Structures

Use of Point Paper, design, draft, Shedding Plain & cross section. Preparation of design & sample basic weaves - Plain, twill & Satin. Ornamentation & derivatives of plain weave. Twill weave - regular, irregulars satin & satin diamond, Honey comb, huck-aback weaves Bedford cords & crepe weaves.

Practice of Card cutting & lacing. Preparation of Textile design for towels & napkins & jacquards Preparation of sample according to design.

LIST OF TOOLS AND EQUIPMENTS :-

Sr. No.	Description of tools & equipments	No. required
1.	Plain Power loom with else Reed mechanism and over pick R.S. 48".	01
2.	Dobby looms with 16 shafts dobby R. S. 60" over pick loom	01
3.	Auto loom (Any)	01
4.	Jacquard – Single lift single Cylinder & Double lift Double cylinder.	01
5.	Eccles Drop box loom	01

REFERENCE BOOKS :-

Sr. No.	Name of the book	Name of the Author
1.	Weaving mechanism	Fox
2.	Weaving mechanism	K. T. Aswani
3.	Weaving	ATIRA

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