

MAHARASHTRA STATE BOARD OF VOCATIONAL EDUCATION EXAMINATION, MUMBAI
EXAMINATION – JULY 2017
CERTIFICATE COURSE IN WEAVING OF MAN-MADE FIBER FABRICS (402153)

TIME ALLOWED – 3 Hrs.

MARKS – 100

SUBJECT – WEAVING TECHNOLOGY (THEORY-I)

Instructions:

1. Attempt all questions.
2. Illustrate your answers with neat sketches wherever necessary.

Q.1. (A). Fill in the blanks. (Attempt any 5) 5

1. In right hand dobby pattern cylinder rotates in _____ direction.
2. Main objective of winding is the removal of _____ from the yarn.
3. In jacquard shedding warp ends are controlled individually by _____
4. Sizing _____ yarn strength.
5. Single lift single cylinder forms _____ type of shed.
6. In non-precision winder or drum winder winding speed is _____ throughout build of package.

(B) State True or False (Attempt any 5) 5

1. If repeat of weave is on 24 ends Dobby Shedding device is used in looms.
2. In automatic loom under pick motion is used.
3. +ve intermittent take up motion is Five wheel.
4. In London harness mounting harnesses are straight tied.
5. Heavy sizing includes Weighting Material type of ingredient more as compare pure sizing.
6. Semi open shed gives less strain on warp during shedding.

(C) State long form (Attempt any 5) 5

1. Sizing is the heart of weaving.
2. Drawing in & denting.
3. Air jet loom.
4. Different types of shed.
5. Weft accumulators.
6. Capacitance type of slub catcher.

(D) Match the pairs (Attempt all) 5

Group 'A'

1. Projectile
2. Automatic loom
3. Air jet loom
4. Box swell
5. Electricity of sley (Eccentricity)

Group 'B'

1. Sley comes forward fast and moves back slow.
2. Profile Reed
3. Reduce the speed of shuttle at entrance of shuttle box
4. Tuck in selvedge
5. Cop changing

Q.2. Attempt any two of the following. (Attempt any 2) **16**

1. Explain construction & Working of keighley dobby.
2. Explain passage of yarn through slasher sizing machine?
3. Explain with neat diagram method of lattice pegging for left hand dobby for 8X8 twill weave.
4. Explain construction of working of CLIMAX dobby.

Q.3. Attempt any two of the following. (Attempt any 2) **16**

1. Write down about tensioning devices used in winding.
2. Explain the passage of warp through high speed warping machine.
3. Write down the steps of picking in projectile loom.
4. Explain the features of shuttleless looms.

Q.4. Write answers in detail. (Attempt any 2) **16**

1. Explain the sequence of process involved in manufacturing cotton fabric.
2. What are the objectives of warping? Describe passage of material through warping.
3. Calculate the production of winding in kgs/shift/machine. If winding drum speed- 1200rpm
Drum diameter-4 inches
Yarn count-40^s
Efficiency %-65%
No. of drums per machine-60
4. Calculate the production of warping in meters per day.
If- Diameter of drum 27 inch, RPM of drum 100, Efficiency%-- 75%

Q.5. Write short notes. (Attempt any 4) **16**

1. Different types of shed
2. Filament warp sizing
3. Features of Air jet looms
4. Developments of loom
5. Methods of yarn drying in sizing machine

Q. 6. Attempt any 2 out of 4. **16**

1. Explain stages involved in water jet picking.
2. Explain with neat sketch write pegging for left hand dobby.
3. Write down about electronic jacquard.
4. Explain construction & working of single lift single cylinder jacquard.

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SUBJECT – INTRODUCTION TO TEXTILES & FABRIC STRUCTURE (THEORY-II)

Instructions:

1. Attempt all questions.
2. Illustrate your answers with neat sketches wherever necessary.

Q.1. (A). Fill in the blanks. (Attempt any 5) 5

1. Weft threads also called as _____.
2. _____ keeps fibres in the spun yarn together.
3. _____ are the basic building blocks of textiles.
4. Weft rib is derivatives of _____ weave.
5. _____ is localized dyeing.
6. _____ is the process of introducing permanent loops in the filament.

(B) State True or False (Attempt any 5) 5

1. Mainly Honey comb weave are used for Toweling.
2. A typical Pique structure consist of plain face fabric compose of one series of warp and two series of weft threads and a series of back or stitching warp threads.
3. Twill weave forms straight line effect on the fabric.
4. Cotton count is the weight in grams of 1000 meters long yarn.
5. Filament fibres are of short and discontinuous length.
6. Extension of Sateen weave comes under derivatives of plain weave.

(C) State long form (Attempt any 5 out of 6) 5

1. Satinette.
2. Yarn.
3. Warping.
4. Tex.
5. Weave Repeat Unit.
6. Denier.

(D) Match the pairs (Attempt all) 5

- | Group 'A' | Group 'B' |
|-------------------------|-------------------------------------------------------|
| 1. Semisynthetic Fibres | 1. Separation of Cotton fibre from cotton seed |
| 2. Satin | 2. Curved Twill |
| 3. Curved Draft | 3. To remove size from warp yarns of the woven fabric |
| 4. Ginning | 4. Warp faced Weave |
| 5. Desizing | 5. Based on natural polymer |

Q.2. Attempt any two of the following. (Attempt any 2) **16**

1. Draw Twill-Faced Bedford Cord in 22 x 6.
Ends/cord=11, 2/1 twill is employed for face picks and 6 picks/cords.
2. Construct Check Colour and Weave Effect using Step Pattern.
3. Draw Waved Pique by using 6 x 6 Stitching ends.
4. Draw any two methods of Crepe weaves with Design, Draft and Peg plan.

Q.3. Attempt any two of the following. (Attempt any 2) **16**

1. Draw Warp rib on 6 x 6 with draft & peg plan.
2. Show any example with any repeat size for Combination of Twill weave.
3. Draw Transposed Twill group of 3 in 12 x 12.
4. Draw Herringbone Twill on 16 x 4.

Q.4. Write answers in detail. (Attempt any 2) **16**

1. Draw Honey Comb weave on 5 shafts. What are the characteristics of this weave?
2. Describe nonwovens.
3. Describe printing and finishing.
4. Give process flow chart of polyester. Describe any three specialty polyester with single statement.

Q.5. Write short notes. (Attempt any 4) **16**

1. Describe any four woven fabric faults. Compare woven and knit fabrics on any four points.
2. Draw Ordinary Honey Comb Weave on 10 x 10 with Design, Draft & Peg Plan.
3. Describe non wovens.
4. Draw design of any two possible Twills on 6 heald shafts.
5. Construct crepe weave on sateen base.

Q.6. Attempt any 2 out of 4. **16**

1. Show method of Extension of Sateen Weaves.
2. Which are the three basic weaves? What are the characteristics of them?
Give example of each of them.
3. Show sectional diagram of Warp rib in 4 x 4.
4. Draw Irregular Sateens on 4 thread and 8 thread.

Sr.No. 40215321

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Q.1) Perform any one. (Marks 60)

- 1) Prepare Double lift double cylinder jacquard pointed type harness tie.
- 2) Dismantling & refitting of seven wheel take up mechanism.
- 3) Lattice pegging of Right hand dobby (sateen, move of 2).
- 4) Piano card punching for any weave repeat.

Q.2 Solve any One (Marks 20)

- 1) Explain the passage of material through slasher sizing machine.
- 2) Explain construction & working of Climax dobby, with neat sketch.

Q.3 Oral (Marks-10)

Q.4 Term work (Marks-10)

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Q.1. Analyse the given sample and draw the Design, Draft and Peg Plan. 30

Also report the following data:

- 1) Ends per inch
- 2) Picks per inch
- 3) No. of ends per dent
- 4) Ends per Repeat
- 5) Picks per Repeat
- 6) Warp pattern
- 7) Weft pattern

Q.2. Draw cross sectional diagram for above analysed sample. **30**

And produce any colour and weave effect with any compatible repeat size from analysed sample's weave.

Q.3. Write about description for sample No. 1. 10

Q.4. Write about description for Colour and Weave Effect weave. 10

Q.5. Oral 10

Q.5. Term work
10