

22243

24225

3 Hours / 70 Marks

Seat No.

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- Instructions :**
- (1) All Questions are *compulsory*.
  - (2) Answer each Section on same / separate answer sheet.
  - (3) Answer each next main Question on a new page.
  - (4) Illustrate your answers with neat sketches wherever necessary.
  - (5) Figures to the right indicate full marks.
  - (6) Assume suitable data, if necessary.
  - (7) Use of Non-programmable Electronic Pocket Calculator is permissible.
  - (8) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.
  - (9) Use of steam tables, logarithmic, Mollier's chart is permitted.

**Marks**

**1. Attempt any FIVE of the following :**

**10**

- (a) State the objectives of silver lap.
- (b) State the objectives of drawing-in.
- (c) Enlist the methods to produce different fabrics.
- (d) State the functions of following ring frame parts :
  - (i) Traveller
  - (ii) Balloon control ring
- (e) Define size pick-up.
- (f) Define cover factor.
- (g) Enlist the types of winding.



**2. Attempt any THREE of the following : 12**

- (a) Classify textile fibre.
- (b) Draw & label the passage of material through warping machine.
- (c) Calculate english count if a lea of cotton yarn weighs 35 grains.
- (d) Give process flow chart for manufacturing cotton grey fabric.

**3. Attempt any THREE of the following : 12**

- (a) Classify the yarn into different categories.
- (b) (i) A cone of 60<sup>s</sup> count cotton yarn weighs 1.5 kg. Find out the length of yarn it contains.  
(ii) A polyester filament yarn package of 120 Denier weighs 2 kg. Find out the length of yarn it contains.
- (c) Give process flow chart for manufacturing combed yarn.
- (d) Make regular warp rib and weft rib weave on point paper. Draw draft and peg-plan of the same.

**4. Attempt any THREE of the following : 12**

- (a) Draw and label the passage of material through ring frame.
- (b) Calculate resultant count if one end of 20<sup>s</sup>, two ends of 30<sup>s</sup> & three ends of 40<sup>s</sup> are twisted together.
- (c) Give detailed classification of textile fibers. State essential and desirable properties of the same.
- (d) Draw design, draft & peg plan for 2 up 3 down  $\left(\frac{2}{3}\right)$  'S' twill weave.
- (e) Explain 4 point grading system for fabric inspection.

**5. Attempt any TWO of the following :****12**

- (a) Discuss the importance of following yarn parameters :
  - (i) Strength
  - (ii) Elongation
  - (iii) Evenness
  - (iv) Hairiness
- (b) Explain in brief cotton fibre cultivation & picking.
- (c) Define :
  - (i) Design
  - (ii) Drafts
  - (iii) Lifting plan
  - (iv) Denting

**6. Attempt any TWO of the following :****12**

- (a) Explain needle-punching non-woven technology with a neat sketch.
  - (b) Classify the looms into different categories.
  - (c) Define and give expression for :
    - (i) English count
    - (ii) Metric count
    - (iii) French count
    - (iv) Worsted count
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