

312320

24225

3 Hours / 70 Marks

Seat No.

--	--	--	--	--	--	--	--

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

Marks

1. Attempt any FIVE of the following: 10

- a) State the objectives of pre-ginning and ginning.
- b) State the objectives of blow room.
- c) State the objectives of draw frame process.
- d) List the objectives of ring frame.
- e) Define worsted count. Give mathematical expression (formula) of worsted count.
- f) State the objectives of winding.
- g) Draw diagrams of different winding packages.
- h) Draw design, draft and peg-plan of plain weave.

P.T.O.

- 2. Attempt any THREE of the following:** **12**
- a) Give detailed classification of textile fibres with example of each one of them.
 - b) Give the process flow chart for production of combed yarn. Explain the objectives of combing preparatory and comber machine.
 - c) i) Define English count. Give expression (formula) for the same.
ii) A cone of 40^S cotton yarn weighs 2 kg. Calculate the length of yarn it contains.
 - d) Give process flow chart for manufacturing mono colour fabric.
- 3. Attempt any THREE of the following:** **12**
- a) Describe various essential and desirable properties of textile fibres.
 - b) Define Denier and Tex. Give expression (formula) for the same. A 100 meter lea of polyester filament yarn weighs 2 grams. Calculate the Denier and Tex of the same.
 - c) Explain various methods of production of fabric with the help of diagram.
 - d) i) A 300 meter lea of cotton yarn weighs 12 grams. Calculate the metric count of it.
ii) A cone of worsted yarn of 24^S count weighs 1.5 kg. Calculate the length of yarn it contains.
- 4. Attempt any THREE of the following:** **12**
- a) Describe process flow chart of manufacturing of double yarn.
 - b) With the help of a neat labelled diagram. Explain the passage of material on ring frame machine with help of neat labelled diagram.
 - c) Define woollen count (Yorkshire) and Linen count. Give expression (formula) for both of them.

- d) Describe objectives of –
 - i) Beam warping
 - ii) Sizing
 - iii) Drawing-in
 - iv) Pirn winding.
- e) With the help of a process flow chart explain manufacturing of checks pattern fabric.

5. Attempt any TWO of the following: 12

- a) Describe the objectives of –
 - i) Primary motions
 - ii) Secondary motions
 - iii) Auxiliary motions on the loom.
- b) Explain the passage of warp through sizing machine with the help of a neat labelled diagram.
- c) Draw design, draft and peg-plan of –
 - i) $\frac{2}{2}$ twill weave on 8 ends and 8 picks.
 - ii) 5 end stain on 10 ends and 10 picks.

6. Attempt any TWO of the following: 12

- a) Give detailed classification of yarns used in textile industry. State feature and end use of each type of yarn.
 - b) Explain method of fabric inspection. State importance of the same. Explain causes and remedies of any three fabric defects.
 - c)
 - i) Elaborate inter-relationship of design, draft and peg-plan with the help of an example.
 - ii) Elaborate the concept of crimp and cover factor of fabric.
-