

17692

21819

3 Hours / 100 Marks

Seat No.

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

Marks

- 1. Attempt any FIVE of the following: **20****
- a) State factors to be considered for site selection of knitting unit.
 - b) State the requirement of textile mill building.
 - c) Write the name of material handling equipments used in spinning and weaving department.
 - d) Explain the need of energy conservation in textile mill.
 - e) State the importance of humidity in textile industry.
 - f) What are the causes of following in textile mill?
 - (i) Water pollution,
 - (ii) Noise pollution.
 - g) What are the different categories of workers in textile mill?

P.T.O.

- 2. Attempt any TWO of the following:** **16**
- a) Calculate machinery required for producing 30^s carded yarn for 40,000 spindles of ring frame.
 - b) Write the work load of following labour in spinning department:
 - (i) Godown attendant
 - (ii) Scutcher tenter
 - (iii) Card tenter
 - (iv) Comber tenter.
 - c) State measures taken for energy conservation in following department of textile mill:
 - (i) Ring frame
 - (ii) Speed frame
 - (iii) Carding.
- 3. Attempt any TWO of the following:** **16**
- a) Calculate spinning organization for 36^s English combed yarn for 20,000 kg yarn per day.
 - b) Give labour requirement at the following department.
 - (i) 10 Autoconer winding machine
 - (ii) 96 Non - automatic loom.
 - c)
 - (i) Write power consumption in spinning mill producing combed yarn.
 - (ii) Write R, H% required in each department of weaving preparatory and loomshed department.

4. Attempt any TWO of the following:**16**

- a) Prepare a weaving organization to supply 5000 meters of plain poplin cloth with following particulars:
- (i) Warp count = 40^s Ne.
 - (ii) Weft count = 40^s Ne.
 - (iii) EPI = 132
 - (iv) PPI = 96
 - (v) Loom speed = 250 rpm
 - (vi) Tape length = 150 yards
 - (vii) Reed space = 63.5"
- Assume suitable data if any
- b) State the causes of accident in loom shed department and suggest the control measures to reduce them.
- c) Describe with neat sketches types of material handling equipment used in textile mill.

5. Attempt any TWO of the following:**16**

- a) Calculate machinery required to produced 50,000 meters of dress material fabric with following particulars:
- (i) Warp count = 22^s
 - (ii) Weft count = 16^s ,
 - (iii) EPI = 59,
 - (iv) PPI=69,
 - (v) Width of finished fabric = 36".
- (Assume suitable data if any)
- b) Explain steps involves in planning a layout of textile mill. Also compare product and process layout.
- c) Prepare a layout for following machines:
- (i) 100 Ring frame,
 - (ii) 20 Speed frame.

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Marks

6. Attempt any TWO of the following:

16

- a) Prepare a layout for weaving preparatory and loom shed department producing check pattern fabric.
- b) Describe the methods of humidification in textile mill.
- c) (i) Prepare processing parameters in table (chart) for producing 20^s carded yarn on 25,000 spindles.
(ii) Prepare processing parameter in table (chart) for producing 30,000 meters of drill fabric per day.
