

# 17692

11819

**3 Hours / 100 Marks**

Seat No.

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- Instructions* –
- (1) All Questions are *Compulsory*.
  - (2) Answer each next main Question on a new page.
  - (3) Illustrate your answers 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.

**Marks**

1. Answer any FIVE of the following: 20
- a) Enlist the various factors to be considered while selecting the site for weaving unit.
  - b) Compare the product layout and process layout.
  - c) State the objects of material handling.
  - d) Enlist the various draft ranges and speed of various spinning machinery to spin 40's combed yarn.
  - e) Give the quality particular for following fabrics.
    - (i) Voile
    - (ii) Denim
  - f) State the duties of front sizes in sizing machine.
  - g) State the importance of energy conservation in textile industry.
  - h) State the concept of humidity in textile industry.

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- 2. Answer any TWO of the following:** **16**
- a) Explain the merits and demerits of product layout and process layout.
  - b) Enlist the various material handling equipment used in textile industry.
  - c) Draw the layout for 24 ring from machines only.
- 3. Answer any TWO of the following:** **16**
- a) Prepare a spin plan for producing 40<sup>s</sup> combed count on 60,000 spindles.
  - b) Prepare the spin plan table showing speed, prod<sup>n</sup>, waste, draft parameters for spinning above 40<sup>s</sup> count.
  - c) Give the labour requirement for various spinning department to spin 40<sup>s</sup> combed yarn.
- 4. Answer any TWO of the following:** **16**
- a) Prepare a weave plan for producing the 1,00,000 meter/day denim fabric production on air jet machine.
  - b) Prepare a wave plan table indicating various parameters like speed, prod / day, waste, percentage and No. of machines required for producing above G.S. (a) fabric.
  - c) Give the labour complaints for 24 rapier weaving machine and state duties of air jet weaver.
- 5. Answer any TWO of the following:** **16**
- a) Prepare the layout for 12 rapier looms (190 cm size)
  - b) Give the power requirements for projectile, rapier, airjet machines and discuss the various methods to save energy on those machines.
  - c) Describe the working of any one modern humidification plant in spinning unit.

**6. Answer any TWO of the following:****16**

- a) (i) State the advantages of rural site selection for textile mill.  
(ii) What is energy audit? State its usefulness.
  - b) State the effect of noise in textile industry and discuss the various measures taken to reduce the noise level in textile unit.
  - c) (i) State the relative humidity value for spinning industry.  
(ii) List the types of accidents taken happened in textile mill and also state remedies in textile mill. Enlist the various safety devices to avoid accidents.
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