

22245

12425

3 Hours / 70 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.

**Marks**

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

**10**

- (a) Define textile fibre and filaments.
- (b) State the objectives of ginning.
- (c) State the object of ring frame.
- (d) Classify the yarns.
- (e) State the importance of opening and cleaning.
- (f) State the functions of cages.
- (g) Write down the sequence of machines in Reiter Blowroom line.

**2. Attempt any THREE :**

**12**

- (a) List different types of cleaners. Draw sketch of any one cleaner and label the parts.



- (b) Classify textile fibres.
- (c) Describe with neat sketch saw gin.
- (d) Illustrate with sketch working of any one modern mixer.

**3. Attempt any THREE :**

**12**

- (a) State the factors influencing opening and cleaning of cotton fibre.
- (b) Compare conventional bale openers and automatic bale opener.
- (c) Describe the principle of operation of pneumatic transport of cotton material.
- (d) Calculate cleaning efficiency of blow room if fed cotton has 4.2% trash and cleaned cotton has 1% trash. Also state any two factors which affects cleaning efficiency.

**4. Attempt any THREE :**

**12**

- (a) Describe the step cleaner machine with neat sketch.
- (b) Describe working of piano feed regulating mechanism to control uniformity of material in scutcher.
- (c) Select grid bar setting to achieve the desired waste level in cotton cleaning and also write any 2 functions of grid bar.
- (d) Select intensive cleaner for trashy cotton and also write down where it is in sequence of Blow room line.
- (e) List different types of feeding devices in blow room and describe any one with neat sketch.

**5. Attempt any TWO :**

**12**

- (a) "Conditioning of raw cotton fibre is important before processing in spinning mill." Justify the statement.

- (b) (i) Name any four cotton varieties grown in Maharashtra with their staple length and micronaire value. 4
- (ii) Write down the dimension and weight of standard bale of cotton. 2
- (c) Draw the flow chart for manufacturing of carded yarn. Also write input, output and objects of each process.

**6. Attempt any TWO : 12**

- (a) Select a machine which will detect metal and separate foreign fibres from cotton fibre and describe its principle.
- (b) Describe with neat sketch working of automatic bale opener.
- (c) Calculate the production of a scutcher in kg/hour from the following particulars :
- (i) Tension draft – 1.07
- (ii) Calender roller diameter – 7 inches
- (iii) Calender roller speed – 20 rpm
- (iv) Lap roller speed – 13 rpm
- (v) Hank of lap – 0.0013
- (vi) Efficiency – 82%
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