

# 17344

**11920**

**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 TEN of the following: **20****
- a) State the object of carding.
  - b) What are the functions of flock feeder?
  - c) List the disadvantages of lap feed system.
  - d) What is unidirectional feed?
  - e) What are the functions of grid bar?
  - f) Which type of action taken place between the following:
    - (i) Licker-in and cylinder
    - (ii) Cylinder and flat
  - g) State the licker - in wire specification.
  - h) What is additional carding segments? Why it is necessary?
  - i) State the objects of draw frame.

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- j) List the stopmotions used in drawfram.
- k) What is cots buffing? Why it is necessary?
- l) State the top roller weights of a 4 over 4 drafting system.
- m) What are the advantages of suction system in draw frame?
- n) Define open loop.
- o) Find the hank of a sliver if it weighs 52 grain / yard.

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

- a) Compare lap feed system with chute feed system.
- b) With neat sketch describe passage of material through carding.
- c) With neat sketch describe flock feeder's working.

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

- a) What are the functions of flats? State the advantages of reverse direction movement of flat to cylinder.
- b) With neat sketch describe working of CRV unit.
- c) Write difference between under coiling and over coiling of sliver in a can.

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

- a) Describe modern developments in carding.
- b) Discuss various carding defects, causes and remedies.
- c) Calculate the production of a carding machine in kgs/ shift of 7.5 hours from the following particulars:
  - (i) Doffer dia. - 27 inch.
  - (ii) Doffer speed - 30 rpm
  - (iii) Tension draft - 1.1
  - (iv) Weight of sliver - 52 grains / yard
  - (v) Efficiency - 85%

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

- a) With neat sketch describe passage of material through draw frame.
- b) State the factors affecting on drafting in a draw frame.
- c) Define : Autoleveller. With neat sketch describe torque and groove measuring system used in draw frame.

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

- a) State any eight modern developments in draw frame.
  - b) Discuss defects, causes and remedies in draw frame.
  - c) Calculate the production of a draw frame machine in kgs/shift of 7.5 hours from the following particulars.
    - (i) Back roller dia - 25.4 mm
    - (ii) Back roller speed - 180 rpm
    - (iii) Total draft - 6.2
    - (iv) Hank of sliver delivered - 0.12
    - (v) Efficiency - 90%
    - (vi) No of deliveries - 01
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