

22676

23124

3 Hours / 70 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 answer with neat sketches wherever necessary.
- (4) Figures to the right indicate full marks.
- (5) Assume suitable data, if necessary.
- (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

- 1. Answer any FIVE of the following: **10****
- a) Define process control in spinning.
- b) Enlist the qualities of key variables used for process control in spinning.
- c) Discuss the causes and remedies for “Cracker”.
- d) State the importance of cost condition on yarn quality.
- e) Enlist four important factors that affects between bobbin count variation.
- f) Suggest importance of labour productivity Index.
- g) Suggest measures to improve efficiency of ring frame department.

P.T.O.

- 2. Answer any THREE of the following: 12**
- a) Suggest the factors affecting on yarn strength with respect to fiber used, machine condition and working parameters at ring frame department.
 - b) Explain various steps involved in establishing of norm for process control in spinning.
 - c) Elaborate procedure to control mixing quality and cost with respect to instrumental evaluation, fiber properties and cost of cotton fiber.
 - d) Identify the steps to improve labour and machine productivity at speed frame machine.
- 3. Answer any THREE of the following: 12**
- a) Explain the methods of establishing norms for cleaning efficiency of individual machine in blow room.
 - b) Describe the role of AFIS tester to control the quality of silver at carding machine.
 - c) Explain the role of fractionating efficiency in controlling quality of silver produced at comber.
 - d) Differentiate between lap feed and chute feed system at card with respect to material handling, quality of silver delivered, productivity and maintenance of machine.
- 4. Answer any THREE of the following: 12**
- a) State the causes and remedies of nep generation at carding department with respect to machine condition, relative humidity type of fibres in the mixing.
 - b) Choose an appropriate method of measuring and controlling trash content in blow room lap and explain the method of eliminating trash at blow room.
 - c) Enlist and explain various causes and remedies for within lap variation with respect to blow room machine condition, ambient condition in department and type of fibres being used.
 - d) Enlist various causes of periodic irregularities in ring spun yarn, give remedies to avoid with respect to machine condition.

- e) Enlist and explain various causes affecting yarn strength with respect to quality of carding, quality of combing and quality of mixing.

5. Answer any TWO of the following: 12

- a) Elaborate method for assessing performance at Blow room with respect to method of data collection, data analysis and taking corrective action.
- b) Define the term yarn realisation, explain the method of estimating yarn realisation with respect to process variables, production cost and corrective action to be taken to improve it.
- c) Identify various package faults in the rotor spun yarn and give causes and remedies.

6. Answer any TWO of the following: 12

- a) Suggest steps to control CV% of lea count variation of ring spun yarn.
- b) Explain importance of machinery audit and suggest steps conduct machinery audit on ring frame machine.
- c) Explain the importance of energy conservation in process control of spinning. Suggest the steps for energy conservation at preparatory department.
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