

## Scheme - I

### Sample Question Paper

**22676**

**Program Name : Diploma in Textile Manufactures**

**Program Code : TX**

**Semester : Sixth**

**Course Title : Process Control in Spinning**

**Max. Marks : 70**

**Time: 3 Hrs.**

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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) Preferably, write the answers in sequential order.

**Q1. Attempt any FIVE of the following.**

**10 Marks**

- a) Define: Process control in spinning.
- b) Define: Yarn realization.
- c) State the importance of pneumaphil pressure.
- d) State the importance of cots buffing.
- e) Define: Hard waste.
- f) State the application of productivity Index.
- g) Give the formula for LER.

**Q2. Attempt any Three of the following.**

**12 Marks**

- a) State the importance of key variables; explain one key variable for each department in spinning
- b) Explain the methods of establishing standards and norms in process control.
- c) Describe with neat sketch graphical method to control mixing cost and quality.
- d) Give the application of linear programming method

**Q3. Attempt any Three of the following. 12 Marks**

- a) Give the yarn realization norms for 60s combed yarn.
- b) State the nep causes and remedies in carding department
- c) Define fractionating efficiency, also state the factors affecting.
- d) List and explain roving bobbin defects

**Q4. Attempt any Three of the following. 12 Marks**

- a) Differentiate any four points between lap feed and chute feed system in carding based on ease of handling material, quality of delivered sliver, productivity and maintenance of machines.
- b) Give the application of AFIS tester used for carding.
- c) State the causes and remedies of sliver breakages in draw frame.
- d) Explain the causes and remedies of within and between count variation in ring frame.
- e) List the ring yarn faults.

**Q5. Attempt any Two of the following. 12 Marks**

- a) Suggest the factors affecting on yarn strength.
- b) Explain the methods to control yarn strength variation in rotor spinning.
- c) State the causes and remedies of end breakages in rotor spinning.

**Q6. Attempt any Two of the following. 12 Marks**

- a) Explain the rotor package faults causes and remedies.
- b) State the importance of energy management and machinery audit in spinning department.
- c) List and give application of test instruments used for machinery audit.

**Scheme - I**  
**Sample Test Paper - I**

**Program Name : Diploma in Textile Manufactures**

**Program Code : TX**

**Semester : Sixth**

**Course Title : Process Control in Spinning**

22676

**Max. Marks: 20**

**Time: 1 Hour**

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**Instructions:**

- (1) All questions are compulsory.
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- (4) Assume suitable data if necessary.
- (5) Preferably, write the answers in sequential order.

**Q.1 Attempt any FOUR.**

**(8 Marks)**

- a) Define key variable.
- b) Give the formula for FQI.
- c) Define yarn realisation.
- d) State the causes of lap rejection in blow room.
- e) Define fractionating efficiency.
- f) Define periodic irregularity.

**Q.2 Attempt any THREE.**

**(12 Marks)**

- a) Draw and label passage of material through AFIS tester.
- b) Suggest the steps to control yarn realization.
- c) State the causes of roving breakage.
- d) State the causes and remedies of
  - i. spinners doubles
  - ii. Snarl yarn defect.

## Scheme - I

### Sample Test Paper - II

**Program Name** : Diploma in Textile Manufactures

**Program Code** : TX

**Semester** : Sixth

**Course Title** : Process Control in Spinning

**Max. Marks** : 20

**22676**

**Time: 1 Hour**

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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) Preferably, write the answers in sequential order.

#### **Q.1 Attempt any FOUR.**

**(8 Marks)**

- a) Explain the importance of Indices of productivity.
- b) Define i) MEI ii) PI.
- c) List the names of rotor package faults.
- d) Give the energy consumption in ring frame.
- e) Define machinery audit.
- f) List the names of testing instruments used in machinery audit.

#### **Q.2 Attempt any THREE.**

**(12 Marks)**

- a) State the steps to maximize ring frame efficiency..
- b) Give the norms for rotor lea count variation.
- c) State the causes of rotor package defects.
- d) Give the energy conservation in spinning and weaving department.