

22368

24225

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) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Solve any FIVE :

10

- (a) Define fibres and filament.
- (b) State the characteristics of fibre forming polymer.
- (c) Enlist various techniques of polymerization.
- (d) Define the term “POY” yarn.
- (e) List down the various methods for manufacturing of man-made yarn.
- (f) State any four physical properties of cotton.
- (g) Draw the flow chart for manufacturing of Nylon 66.

2. Attempt any THREE :

12

- (a) State the essential properties of fibres.
- (b) Explain melt spinning process with neat sketch.
- (c) Explain morphological structure and chemical constitution of jute fibre.
- (d) State the physical and chemical properties of silk.



- 3. Attempt any THREE :** **12**
- (a) Define “FOY” yarn. Also draw neat labelled sketch of wet spinning.
 - (b) Explain the morphological structure of wool fibre with neat sketch.
 - (c) State the end uses of Tencel and Viscose rayon.
 - (d) State the physical and chemical properties of polyester.
- 4. Attempt any THREE :** **12**
- (a) Explain the physical and chemical properties of Viscose rayon.
 - (b) State the essential requirements of wet spinning process.
 - (c) Draw the flow chart for manufacturing of polyester.
 - (d) State the advantages of Textured yarn.
 - (e) Classify the textured yarn. Also state the properties of textured yarn.
- 5. Attempt any TWO :** **12**
- (a) Explain the passage of yarn through Air-Jet texturing with neat sketch.
 - (b) Explain the polypropylene with reference to following :
 - (i) Raw material requirement
 - (ii) Physical properties
 - (iii) End uses
 - (c) Enlist various animal protein fibres. Also state physical and chemical properties of any one animal protein fibre.
- 6. Attempt any TWO :** **12**
- (a) Describe the manufacturing process of viscose rayon with neat sketch.
 - (b) Draw the flow chart for manufacturing of polyacrylonitrile. Also state physical and chemical properties of polyacrylonitrile.
 - (c) Enlist the various methods for manufacturing of textured yarn. Explain the manufacturing of stretch yarn with neat sketch.
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