

22583

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 answers with neat sketches wherever necessary.
  - (4) Assume suitable data, if necessary.
  - (5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

**Marks**

**1. Attempt any FIVE :**

**10**

- (a) Define non-woven textiles.
- (b) State two characteristics features of non-woven.
- (c) Write one advantage and one limitation of foam bonding.
- (d) State the various methods of thermal bonding.
- (e) State the principle of Melt blown technology.
- (f) State four desirable characteristics of fibres/yarns used for medical textile.
- (g) State the advantages of using agro textiles for horticulture.

**2. Attempt any THREE :**

**12**

- (a) Differentiate between woven and non-woven fabrics.
- (b) Distinguish between ultrasonic Bonding and Radiant Heat Bonding.
- (c) Distinguish between Hot calendering and Belt calendering process.
- (d) State the chemical and physical property of Nylon fibre.



- 3. Attempt any THREE :** **12**
- (a) Discuss the role of textiles in medical implantable material.
  - (b) Describe the role of textile in hygiene products and discuss any one application.
  - (c) Describe the role of textiles in Bird protection nets.
  - (d) Discuss the role of textile in agriculture sun screen.
- 4. Attempt any THREE :** **12**
- (a) Explain Historical background of non-wovens in brief.
  - (b) Explain the web bonding process with sketch.
  - (c) Describe Spun Bond Technology with schematic diagram.
  - (d) Give detailed classification of Technical Textiles.
  - (e) Discuss various materials used for Technical Textiles.
- 5. Attempt any TWO :** **12**
- (a) Explain in detail the basic non-woven manufacturing processes.
  - (b) Describe with sketch the filtration properties of Geo textiles and discuss one application based on above property.
  - (c) State the characteristics of Geo Textiles.
- 6. Attempt any TWO :** **12**
- (a) State the applications of Geo composite, Geo membranes and Geo mattress.
  - (b) Give the classification of Medical Textiles.
  - (c) State the advantages of using Agro textiles in Animal husbandry and Aquaculture nets.
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