



17650

21718

2 Hours / 50 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) *Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.*

Marks

1. Attempt any seven :

14

- a) What are the principles of Filtration ?
- b) Give the classification of Medical textiles.
- c) Define "Technical Textiles".
- d) Enlist the various methods of coatings.
- e) What are the various polymers and additives used in coated technical textiles.
- f) Mention any four health care and hygiene products with their application in medical textiles.
- g) What are the various environmental requirements of defence textiles ?
- h) What are "Fusible interlinings" ?
- i) What are the essential criteria of fibres used in defence textiles ?
- j) What are implantable materials in medical textiles ?

2. Attempt any four :

12

- a) Give the classification of Technical textiles with 2 examples each.
- b) Explain any one method of coating with suitable figure.
- c) Explain the separation technique of solid-liquid system by technical textiles.
- d) What are the various features and characteristics of textiles material used in medical textile ?
- e) Explain the application of defence textiles in biological and chemical warfare.
- f) State the future prospect of technical textiles in India.

P.T.O.

**3. Attempt any four :****12**

- a) Distinguish between “Industrial Textile” and “Technical Textiles”.
- b) What are the physical properties of coated fabrics ?
- c) Describe the yarn types and the fabric construction for filtration.
- d) State the concept of “Buildtech” and “Hometech”.
- e) What is lamination ? Enlist various application of laminated fabrics.
- f) With graph, explain the relation of filtration efficiency and pressure.

4. Attempt any four :**12**

- a) Explain the manufacturing method of laminated fabrics.
 - b) Explain with examples, the areas of application of Technical textiles.
 - c) What are extra-corporeal materials and explain its application to human health.
 - d) Describe the application of defence textile for Camouflage and concealment in military.
 - e) What are the requirements of defence textile for protection from ballastic materials ?
 - f) Describe how thermal insulation and water proofing is achieved in defence textiles ?
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