

17650

**21819**

**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.

**Marks**

**1. Attempt any SEVEN :**

**14**

- (a) Enlist the major requirements of textiles material used in defence.
- (b) Discuss the desirable properties of medical textiles.
- (c) Mention the various principles of filtration.
- (d) State the advantages of technical textiles over conventional textiles.
- (e) Give the classification of Medical Textiles.
- (f) State the various methods of “application of Coating”.
- (g) What are the types of fibres and fabrics used in Defence textiles ?
- (h) State the concept of “Lamination Process”.
- (i) What are the various applications and products of technical textiles in medical field ?
- (j) Define “Technical Textiles” with some examples.

- 2. Attempt any FOUR :** **12**
- (a) Explain the application of Medical textiles in health care and hygiene products.
  - (b) Describe the different types of textile materials used as Woven and Non-woven filter media.
  - (c) Give the classification of Technical textiles.
  - (d) Describe any one method of “Coating to textiles” in detail.
  - (e) Explain about the finishing material that are used in filtration.
  - (f) Explain the application of Defence textiles used against environmental protection.
- 3. Attempt any FOUR :** **12**
- (a) Explain the Defence textile used for Ballistic protection.
  - (b) Describe the role of Non-implantable materials in medical textiles.
  - (c) Describe the present status and the future of Technical textiles.
  - (d) Describe the filtration spectrum.
  - (e) What are the fibres and fabrics used in coating and the various additives used in coating ?
  - (f) Describe solid-solid and solid-liquid filtration techniques.
- 4. Attempt any FOUR :** **12**
- (a) Explain the fabric requirements at high altitude and the application of Defence textiles.
  - (b) Describe “extra corporeal” materials and its application in medical textiles.
  - (c) Describe the various areas of application of technical textiles.
  - (d) Describe the different applications of coated and laminated fabrics.
  - (e) Explain the application of defence textile against chemical & Biological warfare.
  - (f) Give the various examples of applications which comes under buildtech.
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