21415

2 Hours / 50 Marks   Seat No. ☐☐☐☐☐☐☐☐

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) Define Technical Textile.

   (b) Give three end uses from coated textile with its application.

   (c) What are the fusible interlining ?

   (d) State the meaning of filteration.

   (e) Give the application of Non-implatable material.

   (f) Which are implatable materials ?

   (g) Name six health-care products and their application.

   (h) How to measure insulation efficiency of textile ?

   (i) Which are the environmental requirements of military textile ?

   (j) Enumerate electromagnetic spectrum.

2. **Attempt any FOUR :**   **12**

   (a) Enumerate classification of 12 technical textiles.

   (b) Mention historical developments of technical textile.

   (c) What is the future for technical textile in India ?

   (d) Compare industrial textile and technical textile.

   (e) How textiles are affected by developments in fibres ?

   (f) Which fibres and fabrics are used in coated fabrics ?

3. **Attempt any FOUR :** **12**

   (a) Mention 3 polymers and their special purposes as used in coated fabrics preparation.

   (b) Sketch and describe one method of coating.

   (c) How rotary screen printing technique is used in coating the textile ?

   (d) Give the principles of filtration.

   (e) Describe with graph the relation of filtration efficiency & pressure.

   (f) Give the filtration spectrum.

4. **Attempt any FOUR :** **12**

   (a) How extracorporeal devices from technical textile helps to human being ?

   (b) Give the historical developments of medical textile.

   (c) Which properties of technical textiles help to military land forces ? How ?

   (d) What are the requirements of military textile with respect to heat and flame ?

   (e) Describe camouflage concealment in military textile.

   (f) How thermal insulation is achieved in military clothing ?

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