

17650

16117

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) Use of Non-programmable Electronic Pocket Calculator is permissible.
 - (7) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any SEVEN of the following: 14

- a) Define ‘Technical Textiles’.
- b) What is the difference between technical textiles and industrial textiles.
- c) What are fusible interlinings.
- d) Explain the speciality of polyvinyl chloride as a coating agent.
- e) Describe filtration spectrum.
- f) How to test filtration capacity?
- g) List down various types of sutures used. Give their construction particulars.
- h) List down various hygiene products.
- i) List down various battlefield hazards as encountered for defence textiles.
- j) List down various functional requirements for a technical textile intended for chemical warfare protection.

P.T.O.

- 2. Attempt any THREE of the following:** **12**
- a) Give detailed classification of technical textiles.
 - b) Describe method of application of coating on the fabric from both sides.
 - c) Describe the principle of filtration.
 - d) Give detailed classification of medical textiles.
 - e) Describe the functional requirement of technical textiles intended for environmental protection.
- 3. Attempt any FOUR of the following:** **12**
- a) Elaborate scope of technical textiles.
 - b) Give a detailed note on polymers, additives used for coating.
 - c) Describe various fabric construction used for dust collectors.
 - d) Give the details of applications of coated and laminated textiles.
 - e) Describe various characteristics of materials (fibre, yarn, fabric) intended for medical use.
 - f) Elaborate technical fabric requirements to be used for ballastic protection.
- 4. Attempt any FOUR of the following:** **12**
- a) Elaborate various areas of application of technical textiles.
 - b) Describe history of technical textiles.
 - c) What is extra corporeal and corporeal materials? Give examples of the same.
 - d) What is the necessity of camouflage concealment and deception material/fabric in defence? How it is produced? Elaborate one the type of yarn, fabric and printing technique used for the same.
 - e) List down various applications of technical textiles in defence.
 - f) List down the types of fibres yarns you would like to use for making filter fabric intended to be used for filtering hazardous chemicals.
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