

Unit II

Roll No.

Total Pages : 03

BT-7/D-14

9718

TECHNICAL TEXTILES-I

TT-401-A (Elective)

Time : Three Hours]

[Maximum Marks : 100

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit.

Unit I

1. (a) What technological innovations support the growth of technical textiles ? Discuss in detail. 10
(b) Define Composites. Elaborate the constituents of a composite and functions of each. 10
2. (a) Classify technical textiles as per application areas. 8
(b) Highlight the inherent properties of textiles that make it useful for technical applications. Discuss properties and end use applications of a few technical fibres. 12

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P.T.O.

3. (a) Differentiate Woven and Non-Woven Filters. 10
(b) Define Filtration Efficiency. How can it be improved/controlled ? 10
4. (a) What is meant by Nano Filters ? Discuss the role of fibre, yarn and fabric construction on filtration. 10
(b) Discuss various mechanisms of Filtration. 10

Unit III

5. (a) Tabulate application areas, primary and secondary functions of Geotextile Products. 10
(b) Lay down the selection criteria of fibre and fabric for geotextiles to be used as separator and in drainage. 10
6. (a) How can geotextiles be used in road construction and river embankments ? 8
(b) Discuss the methods of testing the life of a geotextiles and its survivability in soil. 8
(c) Write a note on Natural Fibre Geotextiles. 4

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Unit IV

7. (a) Outline the manufacturing techniques of air bags and seat belts to be used in automotives. For what specific purpose are these used ?
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- (b) Discuss some applications of Textiles in Marines.
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8. (a) How are Textiles used as structural elements in transport vehicles ? Discuss.
7
- (b) Describe the application of textiles in tyres and filters of automotives.
8
- (c) What are the requirements of a fibre to be used for automotive textiles ? Give some examples.
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