

Roll No. ....

Total No. of Page(s): 01

**BT-7/D-13/9714**

**Paper: TT-401A: Technical Textile -I**

Time Allowed: 3 hrs.]

[ Max. Marks: 100

*Note: Attempt any five questions in all, selecting at least one question from each section. All Questions carry equal marks.*

**UNIT-I**

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|---|--|---------|
| 1 | What do you understand by Technical Textile? Give details classification of Technical Textile and their various applications. What is the use of composite material in technical textile?              | 4+6+6+4 |
| 2 | What do you understand by high performance fiber? What are the common high performances fiber uses now a day? Give importance properties of those high performance fibers and their application areas. | 4+4+12  |

**UNIT-II**

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|---|--|---------|
| 3 | Discuss the principle of filtration. What are the different filtrations media use now a day? What are the factors consider for selecting filtration media? Discuss the advantages and disadvantages of textile filter. | 5+3+4+8 |
| 4 | Discuss the theory of dust collection and solid liquid separation. Discuss the role of fibre, fabric construction and finishing treatment on suitability of fabric for filtration.                                     | 8+12    |

**UNIT-III**

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|---|---|--------|
| 5 | Define Geo Textiles. What are the properties required for geo textile material. Discuss the function and application area of geo textile material.            | 4+4+12 |
| 6 | Discuss the fibre and fabric selection criteria for Geo Textile application. Discuss the mechanics of reinforcement, filtration, and drainage by geo textile. | 5+15   |

**UNIT-IV**

- |   |  |      |
|---|--|------|
| 7 | Discuss the fibre type, fabric construction, finishing process and others technical details for production of tyre cord, air bags, seat belts, hoses and filters for use in automobile.  | 20   |
| 8 | What are the application areas for textile in automobile?-discuss in details along with their technical specification. Discuss in details the different application textile in railways. | 16+4 |

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