

Roll No. ....

Total Pages : 02

BT-7/D-18

37092

TECHNICAL TEXTILE-I

TT-401-A

Time : Three Hours]

[Maximum Marks : 100

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

**Unit I**

1. Describe various segments of technical textiles with mentioning their market share and future prospects in detail. 20
2. Write detailed note on technical fibres, role of yarn and fabric construction along with composites. 20

**Unit II**

3. Discuss role of fibre, fabric construction, etc. on filtration. 20
4. Describe the theory of dust collection and separation. mention various mathematical models of filtration. 10+10=20

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### Unit III

5. Why does reinforcement required in certain applications? Describe mechanism of reinforcement and their applications in technical textiles. 20
6. Discuss the life, survivability and sustainability issues of geotextiles. Elaborate detailed note on testing of geotextiles. 10+10=20

### Unit IV

7. Justify that textile is structural element in automobile and transportation of vehicles. 20
8. Describe applications of technical textiles in aircraft and marine industries with mentioning required properties of textile raw material. 20