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MANIPAL UNIVERSITY

EIGHTH SEMESTER B. DES. (FD) DEGREE EXAMINATION – MAY 2017 SUBJECT: ELECTIVE – TECHNICAL TEXTILES (BFD 404.3)

Wednesday, May 03, 2017

Time: 14:00 - 17:00 Hrs.

Max. Marks: 50

- Answer any FIVE complete questions.
- 1A. Discuss in brief the process and end uses utility of technical textiles.
- 1B. Explain the assurance of quality in technical textiles.
- 1C. What is protective textile? Give its classification and uses.

(3+3+4 = 10 marks)

- 2A. Explain Implantable and Non-Implantable materials used in medical textiles.
- 2B. Define Non-woven fabrics. State the advantages of Non-woven fabrics.
- 2C. What are geo-textiles? Enumerate the various fibers used for the area of geo-textiles.

(3+3+4 = 10 marks)

- 3. Write a short note on following:
- 3A. Smart Textiles
- 3B. Build-Tech

 $(5 \text{ marks} \times 2 = 10 \text{ marks})$

- 4A. What are flame retardant textiles? Explain the importance of flame retardant materials along with its classifications.
- 4B. Explain in detail the properties of textile materials used in home textiles.
- 4C. Discuss the application of Agro-textiles with suitable examples.

(4+3+3 = 10 marks)

- 5A. Explain the broad classification of technical textiles.
- 5B. Elaborate the sketches with its components used in designing of protective clothing.
- 5C. Give reasons for maintain better environment with disposables.
- 5D. What are the requirements needed in clothing to climb high mountaineering?

(3+3+2+2 = 10 marks)

- 6. Write a short note on following fibers:
- 6A. Glass
- 6B. Jute
- 6C. PBI
- 6D. Basofill
- 6E. Dyneema

 $(2 \text{ marks} \times 5 = 10 \text{ marks})$