

Paper Id:

160706

Roll No:

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BTECH
(SEM VII) THEORY EXAMINATION 2019-20
FUNCTIONAL TEXTILES

Time: 3 Hours**Total Marks: 70****Note: 1.** Attempt all Sections. If require any missing data; then choose suitably.**SECTION A**

- 1. Attempt all questions in brief.** **2 x 7 = 14**
- (a) What are the applications of sport-textile?
 - (b) Write down requirement of moisture transport?
 - (c) Differentiate smart textiles and intelligent textiles?
 - (d) What is the concept of encapsulation?
 - (e) What is pyrolysis temperature?
 - (f) Define functional clothing?
 - (g) Write down the application of bio-sensing in textiles

SECTION B

- 2. Attempt any three of the following:** **7 x 3 = 21**
- (a) What is the requirement of functional clothing? Give a brief classification of functional clothing?
 - (b) Write down the working principle of smart textiles? What are the applications of smart textiles?
 - (c) What is the mechanism of flammability? How can it be controlled in textiles?
 - (d) Write a short note on the design of spacesuits?
 - (e) What are the waterproof breathable fabrics? Write down the different methods for making waterproof breathable fabrics?

SECTION C

- 3. Attempt any one part of the following:** **7 x 1 = 7**
- (a) Write down and explain component materials for the development of cold weather protective clothing?
 - (b) Write a note on biodegradable and non-biodegradable sutures.
- 4. Attempt any one part of the following:** **7 x 1 = 7**
- (a) Define Nano-coating. Explain all methods of Nano-coating.
 - (b) Write down the different Mechanisms to develop cosmetic effects in textiles?
- 5. Attempt any one part of the following:** **7 x 1 = 7**
- (a) What are the cosmeto-textiles? Introduce various ingredients to be used for making cosmeto-textiles.
 - (b) Write down the mechanism of textile breathability. Why does it required in textiles?
- 6. Attempt any one part of the following:** **7 x 1 = 7**
- (a) What are the applications compression textiles? Explain with examples?
 - (b) Name some waterproof breathable materials to be used for textiles finishing and give a brief introduction for each?
- 7. Attempt any one part of the following:** **7 x 1 = 7**
- (a) What are the sport-textiles? Write down the mechanism of moisture management in textiles
 - (b) Write down different types of wound dressings and their applications in medical textiles?