

B.TECH
(SEM IV) THEORY EXAMINATION 2017-18
TEXTILE AUXILIARIES

Time: 3 Hours**Total Marks: 100****Note: 1.** Attempt all Sections. If require any missing data; then choose suitably.**SECTION A**

- 1. Attempt all questions in brief. 2 x 10 = 20**
- (a) What are the textile auxiliaries? What are these required?
 - (b) How does the surfactant reduce surface tension?
 - (c) What are the wetting agents? How does the textile get wet?
 - (d) Define antifoaming agents. Where can be these used?
 - (e) Write down all standards to check the efficiency of flame retarding agents.
 - (f) Give the full form of ISO.
 - (g) How do the cross-linking agents work?
 - (h) What is the role of sequestering agent?
 - (i) What do you understand by amorphous and crystalline?
 - (j) What is the glass transition temperature?

SECTION B

- 2. Attempt any three of the following: 10 x 3 = 30**
- (a) What is the role of exhausting agent? Explain
 - (b) Write down the difference between soap and detergent.
 - (c) What is HLB scale? Explain.
 - (d) Discuss surface tension. What is the role of surfactant in wet processing?
 - (e) Describe different textile auxiliaries used in scouring and bleaching.

SECTION C

- 3. Attempt any one part of the following: 10 x 1 = 10**
- (a) What are surfactants? Describe various types with its mechanism.
 - (b) What is detergency? How are detergents useful in scouring of cotton? Describe its principle and chemistry.
- 4. Attempt any one part of the following: 10 x 1 = 10**
- (a) Classify various types of textile auxiliaries in detail with respect to their uses in textile industry.
 - (b) Classify various kinds of surface active agents. Discuss the anionic type of surface active agents in details.
- 5. Attempt any one part of the following: 10 x 1 = 10**
- (a) How can the different materials be used for resin finish on textiles?
 - (b) How dispersing agents different from each other? Explain leveling agents?
- 6. Attempt any one part of the following: 10 x 1 = 10**
- (a) How can the efficiency of flame retardants be determined? Write and explain all the standard tests.
 - (b) What is textile printing auxiliaries? Name and explain each printing auxiliary.
- 7. Attempt any one part of the following: 10 x 1 = 10**
- (a) How can the leveling agents and wetting agents be evaluated? Write and explain standard methods for each?
 - (b) Write down the process of mercerization? How does the concentration of auxiliary affect the mercerization process?