

BTECH
(SEM IV) THEORY EXAMINATION 2018-19
CHEMICAL PROCESSING OF TEXTILES I

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) Define heat setting?
 - (b) What are objects of shearing & cropping?
 - (c) Name a chemical which is used in anti crease finish?
 - (d) Write disadvantages of hypochlorite bleaching?
 - (e) What is Tegewa? Where it is used?
 - (f) What are the advantages of ammonia mercerization?
 - (g) What were the differences in fabric properties before and after singeing?

SECTION B

2. **Attempt any three of the following:** **7 x 3 = 21**
- (a) Why mercerization is required? Explain the mercerization of cotton?
 - (b) What are the objects of desizing? Explain continuous enzyme desizing with neat diagram in detail?
 - (c) Explain classification of finishing treatments based on application and durability?
 - (d) Write a note on "importance of finishing treatments in textiles"
 - (e) What are the differences between water repellent and water proof fabrics?

SECTION C

3. **Attempt any one part of the following:** **7 x 1 = 7**
- (a) What are the objects of scouring? Explain the working principle of kier with neat diagram?
 - (b) Explain saponification and emulsification in scouring?
4. **Attempt any one part of the following:** **7 x 1 = 7**
- (a) What is the object of singeing? Explain gas singeing with neat diagram along with its advantages & disadvantages?
 - (b) Explain roller singeing using neat diagram with its advantages and limitation? What changes occurs in fabric during singeing?
5. **Attempt any one part of the following:** **7 x 1 = 7**
- (a) What are objects of bleaching? Explain continuous bleaching method for cotton fabric using hydrogen peroxide?
 - (b) Explain bleaching with hypochlorite solution using suitable recipe?
6. **Attempt any one part of the following:** **7 x 1 = 7**
- (a) Explain various methods of evaluating scouring efficiency?
 - (b) Explain Bio scouring in detail along with its advantages and limitations?
7. **Attempt any one part of the following:** **7 x 1 = 7**
- (a) What are the objects of heat setting? Explain mechanism of heat setting in polyester fibre?
 - (b) Why soil release finish is required? Explain soil release finish