

- (h) Name any *two* anti-crease finishing chemicals.
- (i) Why ammonia treatment is given to cotton fabric ?
- (j) Which chemicals are used in scouring of colored goods ?

Roll No. ....

Total Pages : 04

**July-22-00258**

**B. Tech. EXAMINATION, 2022**

Semester IV (CBCS)

TEXTILE CHEMICAL PROCESSING-I

TE-402

*Time : 3 Hours*

*Maximum Marks : 60*

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*The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.*

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**Note :** Attempt *Five* questions in all, selecting *one* question from each Section A, B, C and D. Q. No. 9 is compulsory.

**Section A**

1. Explain flowsheet and justification of chemical processing of textile material and blend. 10
2. Explain various objectives of singeing. Describe any *one* method of singeing. 10

### Section B

3. (a) Explain the working principle of kier with neat diagram. 5  
(b) Why bleaching is required ? Classify various bleaching methods in detail. 5
4. (a) What is saponification and emulsification describe their importance in scouring process ? 5  
(b) Explain continuous bleaching method for cotton fabric using hydrogen peroxide. 5

### Section C

5. (a) Explain various physical and chemical changes occur in cotton fabric during mercerization. 5  
(b) What are the objects of heat setting ? Explain mechanism of heat setting on Nylon fabric. 5
6. (a) Explain any mercerization process of cotton fabric using suitable recipe. 5  
(b) Explain the factors which affect heat setting efficiency of fabric. 5

### Section D

7. (a) Explain the classification of finishing treatment based on their durability and application. 5  
(b) What are the differences between water repellent and waterproof fabrics ? 5
8. (a) What are the objects of calendering ? Explain one calendering machine using neat sketch. 5  
(b) Write a short note on flame retardant finish. 5

### (Compulsory Question)

9. Attempt all questions : 10×2=20
- (a) Which singeing method is best among all and why ?  
(b) Differentiate between scouring and souring.  
(c) What is solvent scouring ?  
(d) Note down demerits of chlorite bleaching.  
(e) What is Sanforizing ?  
(f) Define plasma treatment.  
(g) Which fibres need heat setting treatment and why ?