

Printed Pages : 2



TT401

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 160408-N

Roll No.

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B. Tech.

(SEM. III) THEORY EXAMINATION, 2014-15

WET PROCESSING OF TEXTILES - I

Time : 3 Hours]

[Total Marks : 100

- Note :
- (1) Attempt all questions.
 - (2) All questions carry equal marks.

1. Attempt any two parts of the following:
 - (a) Write down various bleaching agents used in cotton bleaching with their merits and demerits.
 - (b) Write down the limitations of plate and roller singeing. Explain the working of gas singeing in detail with suitable line diagram.
 - (c) Name the natural and added impurities present in cotton and silk fabrics. Draw process flow diagram of cotton, silk starting from grey to bleaching.
2. Attempt any two parts of the following:
 - (a) Describe various enzymatic processes with their merits and demerits. How do you carried out enzymatic desizing?
 - (b) What is slack mercerization? How do you carried out BAN test?

- (c) Describe the objective of heat setting. How do you sure that heat setting of polyester fabric is done properly or not?
3. Attempt any two parts of the following:
- (a) Describe various Physical and chemical changes taking place in cotton after mercerization. Discuss role of concentration of caustic soda, temperature, tension and time in mercerization.
 - (b) Why does quality of water plays important role in wet processing of textiles? Explain.
 - (c) Discuss the object of kiering. Describe the working of a pressure kier with the help of neat sketch.
4. Attempt any two parts of the following:
- (a) What are the primary and secondary colours? Discuss the essential feature of the CIE system of colours.
 - (b) What is the difference between chainless and chain mercerization. Describe working of chainless mercerization with important machine parameter.
 - (c) Discuss mechanism of Hydrogen peroxide bleaching. Also explain the role of peroxide stabilizer, pH in hydrogen peroxide bleaching.
5. Attempt any two parts of the following:
- (a) Discuss multitubular kier machine with a neat sketch. What are the precautions taken in kier boiling?
 - (b) Why hydrogen peroxide is called universal bleaching agent? How do you bleach cotton fabric using hydrogen peroxide bleaching agent?
 - (c) Describe in detail the process of scouring and bleaching carried out in J box with suitable diagram.