THE TEXTILE ASSOCIATION (INDIA)
GMTA (REVISED) EXAMINATION – 2016
SECTION – D PAPER – D.1
WET PROCESSING - PRE-TREATMENT AND BLEACHING

Date: 23.12.2016  Marks: 100  Time: 02.00 pm to 05.00 pm

Instructions:
1. Attempt any Six questions out of which Q.1 is Compulsory
2. Answer each next question on new page
3. Figures to the right indicate full marks
4. Illustrate your answers with neat sketches & flow charts wherever necessary
5. Use of non-programmable electronic pocket calculator is permissible
6. Mobile and any other communication devices are not allowed in the Examination hall.
7. Assume suitable data wherever necessary

Q.1 Attempt any Five

1. Explain the cropping machine with a neat labeled diagram.
2. What is Milling? Give its significance and explain the process.
3. What are the objectives of scouring of synthetic fibres?
4. Write the significance of Dogumming of Silk. Explain any one method.
5. What are the objectives of scouring cotton? Write the recipe of chemicals used in the process.
6. Enlist any four advantages and limitations of \( \text{H}_2\text{O}_2 \) bleaching.
7. Write the changes taking place in cotton due to Mercerization.
8. Give the importance of souring from dyer point of view? Write the recipe used for the same.

Q.2

1. With a neat labeled diagram, explain the scouring of jute in detail.
2. Write the bleaching recipes and conditions of polyester/ cotton and polyester/ wool blended fabrics. Explain the function of each chemical used.

Q.3

1. Write a detailed note on the different machineries employed for carrying the mercerization of textiles.
2. Enlist and explain the quality control parameters for cotton after mercerization.
Q. 4
1. Write a note on scouring of woven cotton fabrics. Explain the modifications required for scouring of knitted cotton in comparison to woven cotton fabrics.

2. With a neat labeled diagram, describe the working principle and procedure of a Chain mercerizing machine? Write its advantages and limitations.

Q. 5
1. Write a detailed note on the Continuous Bleaching Range used for bleaching of textiles.

2. Explain in detail with the help of neat diagram, the Potting process carried out on wool. Write the conditions and the process details.

Q. 6
1. Explain with the help of a neat labeled diagram, wool scouring. Also explain the operating conditions.

2. Write a note on the bleaching of cotton with peracetic acid. Give any two advantages and limitations. Compare it with hydrogen peroxide bleaching.

Q. 7
1. With a neat labeled diagram, explain the Kier boiling scouring method. Write its advantages and limitations.

2. Why is $\text{H}_2\text{O}_2$ called as universal bleaching agent. Explain the procedure of hydrogen peroxide bleaching of cotton. Enlist the chemicals used in peroxide bleaching and write their functions.

Q. 8
1. Draw a neat labeled diagram of Gas singeing machine. Write the precautions to be taken while working of machine. Also write the advantages and limitations.

2. Give the classification of the different methods of Desizing? Write the procedure and conditions of the enzymatic method. Compare with acid desizing method.

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