WET PROCESSING- PRETREATMENT AND BLEACHING

Date: 24.12.2015  Marks: 100  Time: 2 pm to 5 pm

Instructions:
1. Attempt six questions out of which Q1 is compulsory
2. Answer each next question on new page
3. Figure to the right indicate full marks
4. Illustrate your answers with sketches and flow chart wherever necessary
5. Use of non programmable electronic pocket calculator permissible
6. Mobile and any other communication devices are not allowed in exam hall.
7. Assume suitable data wherever necessary

Q1 Attempt any five
   a. Write the objectives of Shearing and Cropping and explain the two cutter cropping machine with a neat labeled diagram.
   b. What is Crabbing? Give its significance and explain the process.
   c. Write a note on the scouring of synthetic fibres.
   d. What are the different methods of Degumming of Silk.
   e. Which impurities are removed from grey cotton during scouring? Write the function of each chemical used in the process.
   f. Explain the advantages and limitations of hypochlorite bleaching.
   g. Write a note on Liquid Ammonia Mercerisation.
   h. What is scouring? Give its objective. Enlist the chemicals used and write their function.

Q2 a. With a neat labeled diagram, describe the working principle and procedure of Gas singeing machine. Write the precautions to be taken while working of machine. Also write the advantages and limitations.
   b. Write a detailed note on the different methods of Desizing? Write the procedure and conditions of the most preferred method. Write its advantages and limitations.

Q3 a. Write a note on the machineries used in the scouring of cotton. Compare batch and continuous method of scouring.
   b. Explain the mechanism of hydrogen peroxide bleaching of cotton. Enlist the chemicals used in peroxide bleaching and write their functions. Also write on the operating parameters.

Q4 a. What are the different methods of bleaching wool. Explain each method in brief with the operating conditions.

Q5 a. Explain the scouring of wool and jute in detail.
   b. Explain the bleaching recipes and conditions of polyester/cotton and polyester/wool blended fabrics.
Q6  a. Write a detailed note on the different bleaching equipments used for bleaching of textiles.
b. Explain in detail, the Milling and Potting process carried out on wool. Write the conditions and the process details.

Q7  a. Write a note on the Enzymatic scouring development of cotton? Also explain the modifications required for scouring of knitted cotton in comparison to woven cotton fabrics
b. With a neat labeled diagram, describe the working principle and procedure of a Chainless mercerizing machine? Write its advantages and limitations.

Q8  a. Write a note on the different methods of mercerisation and the different machineries employed for carrying the mercerisation of textiles.
b. Enlist and explain the changes taking place in cotton due to mercerisation.

********