B. Tech.
(SEM. VIII) EXAMINATION, 2006-07
TEXTILE AUXILIARIES

Time : 3 Hours] [Total Marks : 100

Note : Attempt one question from each unit. All questions carry equal marks.

UNIT - I

1. (a) What are surface active agents? What are their functions? How are they useful in Textile wet processing?

   OR

   (b) What is detergency? How are detergents useful in scouring of cotton? Describe its principle and chemistry.

   OR

   (c) On what principle wetting agents work? Are they essential in each wet processing operation? Describe a few uses of wetting agents in wet processing sequence.
2. (a) What do you mean by non ionic and cationic surface active agents? How do they work?

OR

(b) Describe the physical principles involved in detergency. Explain their role in washing of reactive printed fabric.

OR

(c) What is the role of leveling and dispersing agents in dyeing? How do they work?

UNIT - II

3. (a) Why stripping agents are employed in dyeing? How do they work? What are the precautions to be taken in their use?

OR

(b) What does an auxiliary mean in relation to wet processing of textiles? What are different types of auxiliaries used in dyeing of cotton goods? Describe their role.

OR

(c) Describe various methods of preparation of wetting agents and their functions.

4. (a) Classify various types of textile auxiliaries with brief chemistry involved in each class.

OR

(b) Write a note on stripping agents.

OR

(c) Describe the quality requirements of an auxiliary and its impacts on processing.

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UNIT - III

5. (a) Discuss the theory of emulsification in relevance to pigment printing of textiles. What would be the impact if the use of kerosene is totally banned in pigment printing.

OR

(b) Write a note on emulsifying agents.

OR

(c) In which process emulsification plays a greater role, out of scouting bleaching and dyeing? Justify your statement.

6. (a) Whether foam finishing is also based on emulsification principle? Justify your statement.

OR

(b) What are the different areas in printing where emulsification process is applicable. Give an account of pigment printing without emulsification process.

OR

(c) How would you prepare a perfect emulsion? Describe the finer points of it.

UNIT - IV

7. (a) Give details of comparative methods of determining wetting efficiency of a wetting agent.

OR

(b) How does time of sinking relates to efficiency of wetting agents? Are you aware of any equipment to measure wetting efficiency? Describe.

OR

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(c) Can you suggest any alternative to conventional method of measuring wetting efficiency in which sinking time is major criterion?

8. (a) Write a descriptive note on Herebig number

OR

(b) Give an account of congo pubine number.

OR

(c) How would you measure the dispersion efficiency. Give details.

UNIT - V

9. (a) Which class of fibres need moth repellant finishes? Give an account of this finish.

OR

(b) What is the function of polyacrylates in finishing? Describe the process of their use.

OR

(c) Write a note on “Resins in finishing of textiles”.

10. (a) How the fire retardant finish has become most important in export quality fabric? Describe the end uses of a fire retardant textile product.

OR

(b) What is nanotechnology? How is it useful in stain resistant cotton fabrics? Describe the process of producing a stain resistant fabric.

OR

(c) Describe the chemistry of polyacetal resins and their uses in textile processing.