

A 507

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2005.

Fifth Semester

Textile Technology

TT 339 — CHEMICAL PROCESSING OF TEXTILE MATERIALS — I

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Outline the effect of oxidising agents on wool.
2. List out the chemical properties of acrylic fibre.
3. Outline the principle of oxidative desizing.
4. Indicate the suitability of pressure boil and open boil processes.
5. What is the role of sequestering agents in peroxide bleach bath?
6. How do you assess the degree of mercerisation?
7. List out the processing machines suitable for batch process.
8. What is counter-current system of washing?
9. Outline the features of Jet dyeing machine.
10. How do you distinguish silk from wool – in the given blend?

PART B — (5 × 16 = 80 marks)

11. (i) Give a detailed note on chemical structure and chemical properties of cotton. (12)
- (ii) Write about identification of natural fibres using chemical tests. (4)

2. (a) Write in detail about rope from bleaching and open width bleaching of cotton fabrics with necessary sketches.

Or

- (b) Explain about batch and continuous scouring process with relevant sketches.

13. (a) Give a detailed note on different methods of desizing.

Or

- (b) Explain about working of chain mercerising machine and chainless padless mercerising machine with neat sketches.

14. (a) Write in detail about washing and drying ranges employed in textile chemical processing industry.

Or

- (b) Give a detailed description of Jigger and Winch machines.

15. (a) Explain about different singeing methods with neat sketches.

Or

- (b) Write about testing of desized, scoured, bleached and mercerised materials.