

**D 311**

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2003.

Fourth Semester

Textile Technology

TT 233 — TECHNOLOGY OF WEAVING PREPARATION

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Why are unwinding accelerators essential in high speed winding machines?
2. Name the various settings you have to change in an electronic clearer when you change count of yarn.
3. Why pneumatic splicing is popular compared to other systems of splicing?
4. What benefits you will derive by using a data acquisition system in winding machine?
5. What precautions will you take while winding filament yarn in a pirn winder?
6. Which type of warping creel will you recommend to a mill which is likely to produce one or two sorts in large quantities?
7. Why are stop motions essential in warping machine?
8. Why is a pre drier essential for high-density warp sheets?
9. Name the ingredients used in size mixture for a polyester cotton shirting material.
10. What are the advantages derived by using high-pressure sizing?

PART B — (5 × 16 = 80 marks)

11. Why is monitoring the % size pick up important? Discuss on the influence of fibre, yarn, size liquor and sizing machine parameters on size pick up. (4 + 12)

12. (a) How are fault classifying instruments in winding used as an off line quality control tool?

Or

- (b) In what way a spliced joint is better than a knotted joint? Explain the various methods by which a yarn can be spliced. (2 + 14)

13. (a) Discuss the progress of automation in cone winding machine.

Or

- (b) Name the different types of warping creels used in the industry. Discuss on the advantages and limitations of each. (4 + 12)

14. (a) Discuss on the precautions to be taken during sizing of polyester yarns.

Or

- (b) A 30s Ne cotton warp sheet containing 3000 ends, has a size add-on of 9%. The drying capacity of the drier is 400 kg/hr. The size concentration used is 7%. Moisture regain of unsized yarn is 6%. If the speed of sizing machine is 75 m/min, calculate the moisture regain of sized yarn.

15. (a) Write short notes on :

(i) Pirn winding

(ii) Sectional warping.

(8 + 8)

Or

- (b) Write short notes on :

(i) Semi automatic drawing-in

(ii) Cone winding for package dyeing.

(8 + 8)