

A 285

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

Fifth Semester

Fashion Technology

FA 217 — TESTING AND QUALITY CONTROL OF TEXTILE AND APPARELS

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Briefly describe the concept of a "Random Sample".
2. Name the fibre properties that are tested to determine the quality of a "cotton".
3. Define what is meant by the terms "Effective length" and "Span length".
4. What is "Coefficient of Variation"? Why is it preferred over standard deviation when comparing the variances of different properties?
5. What is "yarn crimp"? Briefly discuss the effect of this property on fabric weight and extension at break.
6. Name the three standard modes of tensile testing.
7. Define the term "Maximum Spinnable Count". Which fibre property determines this?
8. Define the terms "Bending Length" and "Crease Recovery".
9. What is the effect of twist on the tenacity of staple and filament yarns?
10. List down the factors influencing pilling propensity.

PART B — (5 × 16 = 80 marks)

11. What is "Drape"? Describe in detail how "Drape" is measured and how its value determines the suitability of a fabric for various end uses. (4 + 12)

12. (a) Compare and contrast the 'Ravelled Strip' test and the "Grab" test as tools to determine fabric breaking strength describing each test in detail. (16)

Or

(b) Explain the working of the single thread strength test and thelea strength test and compare the strength results obtained by each method. (8 + 8)

13. (a) Explain the working of the Uster Evenness Tester and its attachments. Describe the various yarn properties these instruments can measure. (12 + 4)

Or

(b) Describe how the Trash% of cotton fibre is measured and explain the importance of measurement.

14. (a) Classify yarn irregularity. Discuss the effect of yarn irregularity and imperfections on fabric appearance.

Or

(b) Name the different methods of measuring the maturity of cotton fibres describing one of the methods in detail. Discuss the effects of changes in fibre maturity on yarn and fabric properties. (6 + 10)

15. (a) Describe the working of the "Martindale Abrasion Tester". List down the factors influencing abrasion resistance of fabrics. (10 + 6)

Or

(b) Write short notes on :

(i) Air permeability testing (6)

(ii) The pilling tester (6)

(iii) The effect of R.H. on the properties of different types of fibres. (4)