

Register Number.....

**B.TECH., DEGREE EXAMINATIONS: NOV/DEC 2012**

Fifth Semester

**TEXTILE TECHNOLOGY**

TTX111: Textile Quality Evaluation

**Time: Three Hours**

**Maximum Marks: 100**

**Answer All Questions:-**

**PART A (10 x 1 = 10 Marks)**

1. A 100 millitex fibre will weigh only 100 mg per kilometer. The hair weight of this fibre will be
  - a.  $100 \times 10^{-5}$  mg/cm
  - b.  $10 \times 10^{-5}$  mg/cm
  - c.  $110 \times 10^{-5}$  mg/cm
  - d.  $100 \times 10^{-10}$  mg/cm
2. Colour measurement are made by a ----- in the HVI
  - a. Colour
  - b. Colorimeter value
  - c. Dye absorption value
  - d. Reflectance value
3. Uster evenness tester works on -----principle
  - a. Capacitance
  - b. Buoyancy
  - c. Fibrgram
  - d. Optical
4. Elmendorf tear tester is a pendulum type ballistic tester which measure
  - a. Bursting strength
  - b. tearing resistance
  - c. Energy loss
  - d. Modulus
5. In hydrostatic head test, the pressure of the water is monitored by a water-filled manometer which measure the ----- specimen in cm of water
  - a. Length of the
  - b. Load on the
  - c. Pressure on the
  - d. water spread on the
6. Find out the instrument used to measure the thickness of a strand under compression
  - a. WIRA roving levelness tester
  - b. Field-walker evenness tester
  - c. Uster evenness tester
  - d. LINRA tester
7. Cones produced by a cone winding machine are inspected by a
  - a. Chi-square test
  - b. ANOVA test
  - c. Random method
  - d. Control chart
8. HVI can break the fibre bundle about
  - a. 7 times faster
  - b. 5 times faster
  - c. 15 times faster
  - d. 10 times faster
9. Short thick faults
  - a. E+F+G
  - b.  $H_1 + I_1$
  - c.  $A_1 + B_1 + C_1$
  - d. E + G

10. When the deviations have a normal distribution about the mean the two values are related by the following equation

a. CV= 1.35 PMD      b. CV= 1.25 PMD      c. CV= 1.15 PMD      d. CV= 1.05 PMD

**PART B (10 x 2 =20 Marks)**

11. Define quality and its types
12. Write the difference between accuracy and precision
13. How will you find out the fibre maturity?
14. What do you mean by nep and its measurement techniques?
15. Write the difference between CRL and CRT
16. Differentiate ASTM grading and electronic inspection board
17. Write a note on hygral expansion
18. List the principle used to measure the air permeability and water proof
19. How will you test the buttons and zippers?
20. What do you mean by AQL?

**PART C (5 x 14 =70 Marks)**

21. a) Briefly explain the application of “F” and “T” test in textile quality evaluation.

**(OR)**

b) Discuss the factors influencing quality and importance of quality assurance.

22. a) Describe the tensojet tensile tester and the factors influencing tensile testing of yarns.

**(OR)**

b) Explain the working principle of Uster evenness tester and hairiness tester.

23. a) Explain the testing procedure of drape and dimensional stability of a fabric

**(OR)**

b) Discuss the working of KES and FAST systems

24. a) Explain the principles of working of AFIS and its limitations

**(OR)**

b) How do you test the fibre fineness and moisture regain of a fibre?

25. a) Briefly discuss the characteristics requirements of accessories of garments

**(OR)**

b) Describe the testing procedure of sewing threads

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