Register Number: ……..

B.TECH DEGREE EXAMINATIONS: MAY/JUNE 2013

Fifth Semester

TEXTILE TECHNOLOGY

TTX111: Textile Quality Evaluation

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. --------- method is used in sampling of fibres, when the material is composed of fibres in parallel order
   a) Squaring technique b) Cut-squaring technique
   c) Random sample d) Biased sample
2. The standard regain of a wool fibre is _____ %
   a) 17 b) 7
   c) 4 d) 2
3. Specific surface = _____
   a) d/4 b) 2/d
   c) 4/d d) l/d
4. Flax has a molecular structure that is very well organized. Its molecules are very long and they have a high degree of orientation of _____ to the fibre axis
   a) 4-5 º b) 10-11 º
   c) 2-3 º d) 0.5-1 º
5. The stelometer instrument works on the _____ principle
   a) Pendulum lever b) Air flow
   c) CRT d) CRL
6. The single thread strength tester works on _____ principle
   a) Pendulum lever b) CRT
   c) CRE d) CRL
7. RKM means _____
   a) Breaking length in kilometers b) Revolution/kilometer
   c) Resistant kilometer d) Revolution / meter
8. The uster evenness tester works on the _____ principle
   a) Strain gauge b) Capacitance
   c) Airflow d) Evenness

9. KES means _____

a) Kawabata efficiency system
b) Kawabata evaluation system
c) Count evaluation system
d) Colour evaluation system

10. Poisson distribution used in _____

a) End breaks in ring frame
b) Dye selection
c) Random sample
d) Loom selection for weaving

PART B (10 x 2 = 20 Marks)

11. Discuss any 2 application of 'F" & 'T' test.
12. Expand ASTM and AATCC.
13. Derive the relationship between moisture content and moisture regain.
14. Write the principle involved in fibre fineness & baer sorter tester.
15. Differentiate between CRT and CRL.
16. Write a note on constant tension transport.
17. How to test the water repellency of a fabric?
18. How to test the abrasion resistance of a fabric and write the principle involved in the instrument?
19. Differentiate between linings and interlinings.
20. How to test the buttons and zippers.

PART C (5 x 14 = 70 Marks)

21. a) Explain the sample techniques used for yarn and fibres.

(OR)

b) Discuss the effects of regain on fibre properties and explain why different fibres have different regains.

22. a) Discuss, with a neat sketch, the construction and working of a modern instrument used for evaluating fibre length parameters.

(OR)

b) Explain the major parts and features of a polarizing microscope. Give an account of the polarized-light method for the determination of the maturity of cotton.

23. a) What are the constructional features of the stelometer instrument that counteract the inertia effects of the heavy beam and the pendulum?

(OR)

b) Discuss the features of an AFIS instrument and explain the cotton characteristics that it can evaluate.

24. a) Explain the factors influencing the tensile properties of textile materials.

(OR)

b) Describe the special features of the uster dynamat and instron tester with a neat sketch.

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

(OR)

b) Describe the testing procedure of sewing threads and seam strength

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