Register Number: ……

M.TECH DEGREE EXAMINATIONS: JUNE 2012

Second Semester

TEXTILE TECHNOLOGY

TTX506: Yarn Quality Analysis

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

Answer ALL Questions:-

PART A (10 x 2 = 20 Marks)

1. Mention the relation between U% and CV%.
2. What is index of irregularity?
3. State the usefulness of variance length curve.
4. Draw the variance length curve for ideal yarn.
5. What is mass variation in yarn?
6. Compare normal and ideal spectogram.
7. What is creep and stress relaxation?
8. State the relationship between yarn twist and strength.
9. Mention the yarn quality requirement for weft knitting.
10. List the effect of yarn quality on fabric appearance.

PART B (5 x 16 = 80 Marks)

11. a) Explain about the mass variations of textile strands in time and frequency domains.

(OR)

b) Derive the relationship between Theoretical and actual irregularity.

12. a) What is Variance length curve? Discuss about the within and between length variance curves with diagram

(OR)

b) Explain the importance of variance length curves with respect to controlling of mass variations of yarn in spinning.

13. a) What is Spectrogram? Explain about the theoretical spectrogram with diagram.

(OR)

b) On what basis yarn faults are classified? Explain in detail.

14. a) Critically discuss the influence of specimen length on yarn tensile properties.

(OR)

b) Explain the influence of testing speed on yarn tensile properties.

15. a) Explain the influence of yarn evenness, elongation and strength on the performance of yarn during weaving.

(OR)

b) What is fabric comfort? Discuss about the effect of yarn quality on fabric comfort properties.

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