

Register Number

B.TECH. DEGREE EXAMINATIONS: APRIL/MAY 2012

Eighth Semester

TEXTILE TECHNOLOGY

U07TTE16: Process and Quality control in Chemical Processing

Time: Three Hours

Maximum Marks: 100

Answer All Questions:-

PART A (10 x 1 = 10 Marks)

1. Grey inspection is involved in _____
A. Quality control B. Process control C. Work control D. Method control
2. Whiteness of fabric is determined by _____.
A. Barium activity number B. Rubbing fastness
C. Fluidity test D. Washing fastness
3. The amount of other impurities present in raw wool is about _____.
A. 1- 3 % by weight B. 4 - 20 % by weight C. 4- 40 % by weight D. 5- 60 % by weight
4. Sericin dissolve in _____.
A. Acid below Ph 2.5 B. Acid above Ph 2.5 to 5
C. Alkaline below Ph 8 to 10 D. Neutral condition
5. The whiteness retention of the fabric specimen is treated in a cotton steamer for _____.
A. 1 kg/cm² at 2 hour B. 2 kg/cm² at 1 hour C. 2 kg/cm² at 2 hour D. 1 kg/cm² at 1 hour
6. The lustre % can be measured on a _____.
A. Moisture meter B. Crock meter C. Lustre meter D. Chrome meter
7. What instrument is used to test rubbing fastness?
A. Crock meter B. Pilling tester C. Laundro meter D. Drape tester
8. What type of evaluation is done to determine water repellency?
A. Moisture meter test B. Laundro meter test
C. Bundesmann test D. Absorption test
9. What is the instrument is used in colour matching?
A. FTIR B. Laundrometer C. Chromatography D. Spectro photo meter

10. FTIR stands for _____.
- A. Fourier transform infra red spectroscopic
 - B. Front transform infra red spectroscope
 - C. Fourier transport infra red spectroscopic
 - D. Front transform invalid spectroscope

PART B (10 x 2= 20 Marks)

- 11. State the importance of quality control in chemical processing.
- 12. What are the process control measures in printing?
- 13. List some impurities in the natural fiber of cotton.
- 14. What are the chemicals used for wax extraction from the natural fibre?
- 15. Mention the temperature of muffle furnace of ash content.
- 16. What is meant by Whiteness Index?
- 17. What is Barium activity number?
- 18. Name the method of evaluating colour fastness properties of a fabric.
- 19. State the optical theory for colour matching.
- 20. What is use of FTIR?

PART C (14 x 5= 70 Marks)

21. a) Briefly explain the selection for the incoming raw material.

(OR)

- b) Enumerate the role of process control and quality control with suitable example.

22. a) Write in detail about the following evaluation techniques of :

- (i) Evaluation of residual wax.
- (ii) Evaluation of scouring efficiency.

(OR)

- b) Write in detail about the following evaluation techniques of :

- (i) Desizing efficiency.
- (ii) Residual size content.

23. a) Explain the estimation of carboxylic groups in cellulose by lodometric method and methylene blue absorption method.

(OR)

b) Name the methods of evaluating mercerization and explain any three in detail.

24. a) Explain the method of quality evaluation for dyed and printed fabrics.

(OR)

b) Explain the following:

(i) Evaluation of Water repellency.

(ii) Evaluation of flame resistance.

25. a) Explain the theory of computer colour matching system.

(OR)

b) Explain in detail about mass spectroscopy techniques in textile applications.
