Reg. No. :

Question Paper Code : P 1568

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2009.

Fourth Semester

Textile Technology

TT 1251 — CHEMISTRY FOR TEXTILES

(Regulation 2004)

Time : Three hours Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Write the important reactions of di-saccharides.

2. Give the structure of Lignin.

3. How are proteins tested?

4. Differentiate oil from fat.

5. List out the important reductive bleaching agents.

6. Give the important derivatives of Furan.

7. Write Beer-Lambert's Law.

8. What are the uses of Fluorescent Brightening Agents?

9. Mention the influence of substantivity of dye in dyeing.

10. Define time of half-dyeing.

PART B — (5 × 16 = 80 marks)

11. (a) Show how cellulose is differed from starch? Write the important reactions of cellulose. (6 + 10)

Or

(b) Explain with sequential steps about the production of Lyocell.

12. (a) Write about the chemical composition of silk and wool. Give the similarities and differences between them. (8 + 8)

Or

(b) Write down the methods of analysis of oil and fat. Provide their important chemical properties. (8 + 8)

13. (a) Explain, how calcium hypochlorite is considered as oxidative bleaching agent.

Or

(b) Explain the mechanism involved in hydrogen peroxide bleaching process.

14. (a) Elaborate the sequential steps of estimation of dye using spectrophotometer.

Or

(b) Show how the following dyes are synthesized :

(i) Congo red,

(ii) Malachite green

(iii) Methyl orange and

(iv) Indigoid dyes. (4 × 4)

15. (a) Explain the mechanism of interactions between cellulose in cotton fibre and reactive dye.

Or

(b) Describe the important adsorption isotherms associated with textile dyeing.

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