

L 1067

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2006.

Second Semester

Textile Technology

CY 1155 — CHEMISTRY — II

(Common to Textile Technology (Textile Chemistry))

(Regulation 2004)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Mention any four advantages of gaseous fuels than solid fuels.
2. The octane number of 2,3-dimethylpentane is higher than of *n*-heptane. Why?
3. What are the disadvantages of hard water when used in boilers?
4. What are zeolites?
5. What is a monomers? Name the monomers of bakelite.
6. What is a safety glass? Mention its use.
7. State with example Pilling – Bed worth rule.
8. A copper equipment should not possess a small steel bolt. Why?
9. What is a bleaching agent? Give any two examples.
10. Mention the preparation, properties and uses of lithium grease.

PART B — (5 × 16 = 80 marks)

11. (i) Describe briefly the purification of water for domestic use. (10)
- (ii) Explain the process of desalination by electro dialysis. (6)
12. (a) (i) Explain with a neat diagram the refining of crude oil indicating its various fractions. (10)
- (ii) Mention the contents determined by ultimate analysis of coal. Give their importance. (6)

Or

- (b) (i) Discuss Orsat's method of flue gas analysis and its significance. (10)
- (ii) Describe Fischer – Tropsh method for synthetic petrol. (6)
13. (a) (i) Explain with examples the different types of polymerization. (9)
- (ii) Write a brief note on vulcanization of rubber. (7)

Or

- (b) (i) Write the preparation, properties and applications of PVC, Nylon 6,6 and polystyrene. (9)
- (ii) Distinguish between thermoplastics and thermosetting plastics. Give two examples for each type. (7)
14. (a) (i) Explain the process of rusting of iron by electrochemical theory of corrosion. (8)
- (ii) What is paint? What are its constituents? Explain their functions. (8)

Or

- (b) (i) What are corrosion inhibitors? How they reduce the rate of corrosion in metals? (8)
- (ii) Write a brief note on cathodic protection by impressed current and Sacrificial anode. (8)

15. (a) Write a brief note on :

(i) SiC and Magnesite bricks.

(10)

(ii) Galvanic corrosion.

(6)

Or

(b) (i) Discuss the softening of hardwater by ion exchange process.

(7)

(ii) Write the production, composition and uses of produce gas.

(9)
