Reg. No. : | | | | | | | | | | | |

S 4028

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2007.

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. How is moisture in a fuel determined?

2. Define Cracking.

3. What are known as elastomers?

4. How is polyethylene obtained?

5. How is caustic embrittlement prevented?

6. How are water-repellent paints made?

7. Give two advantages of break-point chlorination.

8. What is known as desalination?

9. What is the main objective of a refractory?

10. Give an example of natural zeolite.

PART B — (5 × 16 = 80 marks)

11. (a) (i) How will you prepare producer gas? (8)

(ii) Describe the process of refining of crude oil. (8)

Or

(b) (i) Describe Fischer-Tropsch method. (8)

(ii) Discuss the importance of ultimate analysis. (8)

12. (a) (i) Discuss free radical polymerization mechanism. (8)

(ii) What do you mean by vulcanization. Explain in detail. (8)

Or

(b) (i) How is bakelite prepared? Give the properties and uses. (8)

(ii) Briefly explain the effect of shape on properties of polymers. (8)

13. (a) (i) Explain the mechanism of dry corrosion. (8)

(ii) What are the two types of cathodic protection? Explain. (8)

Or

(b) (i) Describe differential aeration corrosion. (8)

(ii) What is called a paint? What are the constituents of paint? Explain their functions. (8)

14. (a) (i) Describe ion exchange method. (8)

(ii) Discuss the important internal conditioning methods. (8)

Or

(b) (i) What is called a scale? Discuss the ill effects of scales. (8)

(ii) Give a brief account of the treatments given for drinking water. (8)

15. (a) (i) How are the greases prepared? What are called lithium-based greases? (8)

(ii) Write down the principle of permutit process for the removal of hardness of water. (8)

Or

(b) (i) How are the magnesite bricks made? Give the properties and uses. (8)

(ii) Write notes on :

(1) Lithophone. (4)

(2) Silicon carbide. (4)