

TED (10)-1016-B

Reg. No.

(REVISION-2010)

Signature

SECOND SEMESTER DIPLOMA EXAMINATION IN ENGINEERING/
TECHNOLOGY—MARCH, 2013

APPLIED SCIENCE—II (CHEMISTRY)

(Common except for DCP and CABM)

[Time : 1½ hours

(Maximum marks : 50)

Marks

PART—A

(Answer *all* questions in one or two sentences. Each question carries 2 marks.)

- I 1. What is anodising ?
2. What is the importance of Green Chemistry ? (2x2=4)

PART—B

(Answer any *two* questions. Each question carries 8 marks)

- II (a) Coating of Zinc or Tin is preferred to control the corrosion of Iron. Why ? 4
(b) Explain the structural isomerism of organic compounds. 4
III (a) What is the relationship between Z and E of an element ? 4
(b) The E_0 of Zinc and Gold are -0.76 and +1.15 V respectively. Construct an electrochemical cell and calculate its e.m.f.. 4
IV (a) Write a note on BuNa rubbers. 4
(b) Comment on radioactive pollution. 4

PART—C

(Answer *one* full question from each unit. Each question carries 15 marks)

UNIT—I

- V (a) What are the factors influencing adsorption ? 4
(b) Explain the working of a primary electrochemical cell. 4
(c) Distinguish between absorption and adsorption. 3
(d) Explain any two applications of electrolysis. 4

OR

| | Marks |
|--|-------|
| VI (a) Give the structure of a (i) Ketone (ii) Amine (iii) Ester (iv) Ether. | 4 |
| (b) What are (i) Teflon (ii) Neoprene. | 4 |
| (c) Classify different types of composites. | 4 |
| (d) Carbon is a unique atom. Why ? | 3 |

UNIT - II

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| VII (a) Define gross calorific value and net calorific value. | 4 |
| (b) Can you produce a gaseous fuel at home ? Explain. | 4 |
| (c) How do you treat sewage water ? | 3 |
| (d) Carbon dioxide is a harmful as well as a harmless pollutant. Comment on it. | 4 |

OR

| | |
|--|---|
| VIII (a) Investigate the impact of some secondary air pollutants on the environment. | 4 |
| (b) Briefly explain solid propellants. | 4 |
| (c) Give two tests to distinguish between saturated and unsaturated organic compounds. | 4 |
| (d) What are the effects of soil pollution ? | 3 |

MADIN Polytechnic College