

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE — APRIL, 2018

APPLIED SCIENCE - II (Chemistry)

[Time : 1½ hours

(Maximum marks : 50)

PART — A

(Maximum marks : 4)

Marks

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

(a) Mention the monomer units of the following polymers.

(i) P V C (ii) Polythene

(b) What is galvanisation ?

(2×2 = 4)

PART — B

(Maximum marks : 16)

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

II (a) Distinguish between absorption and adsorption. 4

(b) Distinguish between strong and weak electrolytes. 4

III (a) What is electrochemical series ? Mention any two applications of it. 4

(b) What is vulcanization ? What are its advantages ? 4

IV (a) Mention any four differences between organic and inorganic compounds. 4

(b) Distinguish between thermoplastic and thermosetting plastic. 4

PART — C

(Maximum marks : 30)

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

UNIT — I

- V (a) Mention four applications of adsorption. 6
 (b) Illustrate the electrolysis taking molten NaCl as electrolyte. 5
 (c) Distinguish between galvanic cell and electrolytic cell. 4

OR

- VI (a) What is the chemical form of rust ? Mention the conditions for rusting. 6
 (b) Distinguish between primary cell and secondary cell. Give one example for each. 5
 (c) What are fuel cells ? What are its advantages ? 4

UNIT — II

- VII (a) Compare solid, liquid and gaseous fuels. 6
 (b) What are functional groups ? Show the functional groups of
 (i) acid (ii) ester (iii) alcohol 5
 (c) What is the uniqueness of carbon atom ? 4

OR

- VIII (a) What are the major impacts of air pollution ? Explain briefly. 6
 (b) What are the sources of water pollution ? 5
 (c) What are the important qualities of a good fuel ? 4