

TED (10)–1016 B

Reg. No.

(REVISION—2010)

Signature

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

APPLIED SCIENCE—II (CHEMISTRY)

(Common except CABM and DCP)

[Time : 1½ hours]

(Maximum marks : 50)

Marks

PART—A

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

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|---|----|---|---|
| I | 1. | Give the schematic representation of Daniel cell. (commercial form) | 2 |
| | 2. | Give the name of the monomers present in natural rubber and any one of the synthetic rubbers. | 2 |

PART—B

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

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|-----|----|--|---|
| II | 1. | What happens when charcoal is added to a mixture of moist gases taken in a closed vessel ? Explain the phenomenon. | 4 |
| | 2. | With an example show that corrosion is an electrochemical process. | 4 |
| III | 1. | Compared with the compounds of other elements the number of organic compounds is very large. Why ? | 4 |
| | 2. | Classify composites with examples. | 4 |
| IV | 1. | Explain the working of a hydrogen-oxygen fuel cell. | 4 |
| | 2. | Give the structure of Nylon 6 and Nylon 6-6. | 4 |

PART—C

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

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|---|----|--|---|
| V | 1. | What are the effects of surface area and temperature on adsorption ? | 4 |
| | 2. | Mention any three applications of adsorption in industry. | 3 |
| | 3. | What are electro chemical series ? What are its applications ? | 4 |
| | 4. | Explain any two applications of electrolysis. | 4 |

OR

	Marks
VI 1. Distinguish between electroplating and anodizing with suitable example.	4
2. Explain the working of a secondary cell.	4
3. Classify different types of conductors.	4
4. Arrange the following as weak, strong and non-electrolytes : H ₂ SO ₄ , Urea, Oxalic acid, KOH, alcohol and NH ₄ OH.	3
VII 1. Based on synthesis how will you classify polymers. Illustrate with examples.	4
2. What happens when refined petroleum is fractionally distilled ?	4
3. What is petrochemical smog ? Mention its harmful effects.	4
4. Briefly discuss green chemistry.	3
OR	
VIII 1. Describe Cottrell smoke precipitator.	4
2. Explain the following : (i) CNG (ii) BOD.	4
3. Distinguish between saturated and unsaturated organic compounds.	4
4. What are the hazards of radioactive pollution ?	3

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