

B.Sc. Semester - 2 (NEP-2020) Examination

MARCH/APRIL-2025

CHE: Foundation in Chemistry (Multidisciplinary Course)

Time: 2 Hours

Marks: 50

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate marks.

Que.1 Answer the following questions (10)

- (A) Describe Preparation, Properties and Uses of Washing Soda.
 (B) Describe Structure, Bonding, Preparation and Properties of Borax.

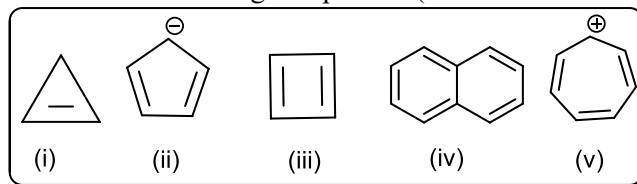
OR

Que.1 Answer the following questions (10)

- (A) Discuss the diagonal relationship of
 i. Lithium with Magnesium
 ii. Beryllium with Aluminum.
 (B) Explain Flame test and Charcoal test.

Que.2 Answer the following questions (10)

- (A) Identify the nature of following compounds (Aromatic / Antiaromatic / non-aromatic):



- (B) What is Error? Explain its types in detail.

OR

Que.2 Answer the following questions (10)

- (A) Explain determination of pH and alkalinity of Water sample.
 (B) Explain determination of Ca and Mg in soil analysis by Complexometric method.

Que.3 Answer the following questions (10)

- (A) What is Polymer? Explain its Classification.
 (B) Give the name of Vitamins A1, B1, C, H, E.

OR

Que.3 Answer the following questions (10)

- (A) Write a note on Schottky and Frenkel defects.
 (B) Describe the preparation process of Nylon-6 and PHBV.

Que.4 Answer the following questions (10)

- (A) Describe the Classification of Oxides based on their chemical behavior and oxygen content.
 (B) Explain Electrophilic aromatic substitution reaction of benzene with mechanism.

OR

Que.4 Answer the following questions (10)

- (A) Discuss Metallic character and Flame coloration of S Block elements.
 (B) Explain Determination of the dissolved oxygen and TDS in water sample

Que.5 Answer the following questions (10)

- (A) Define Unit cell & describe seven types of Crystal system.
 (B) Discuss in detail Chelation and Chelating agents in soil analysis.

OR

Que.5 Answer the following questions (10)

- (A) Calculate no. of atoms per unit cell in Simple Cubic cell, BCC and FCC.
 (B) Write criteria of Aromatic, antiaromatic and non-aromatic compounds with examples.
