

22180

II SEMESTER B.Sc. EXAMINATION, AUGUST 2023

035

SCHEME: SEMESTER (NEP)

BIOCHEMISTRY

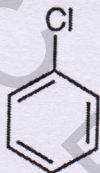
DSC 2 - CHEMICAL FOUNDATIONS OF BIOCHEMISTRY 2

Time: 2 ½ Hours

Max Marks: 60

Instructions to Candidate: Answer any FIVE questions from PART-A and any FIVE questions from PART-B.

PART- A

1. 5x2=10
- a) Define minerals and ores. CO3 LL1
- b) Write the IUPAC name of CO2 LL2
- i)
$$\begin{array}{c} \text{H}_2\text{N}-\text{CH}-\text{COOH} \\ | \\ \text{CH}_3 \end{array}$$
- ii) 
- c) What is geometrical isomerism? CO2 LL2
- d) Mention the types of chemical catalysis. CO1 LL1
- e) Define coordination number. Write its significance. CO4 LL1
- f) Write any two symptoms of lead poisoning. CO4 LL1
- g) What are porphyrins? Mention the types. CO3 LL1

PART- B

- 5x10=50
2. a) Explain the properties of colloidal solution. CO1 LL1 5
- b) What is plane polarized light? Explain the condition for optical isomerism. CO2 LL2 5
3. a) Write the importance of Fe in biological system. CO3 LL1 4
- b) Give a brief note on theories of catalysis. CO1 LL2 6
4. a) Explain the role of stereochemistry in biological systems. CO2 LL2 5
- b) Write a note on endergonic and exergonic reactions with example. CO4 LL2 5

PTO

22180

- | | | | |
|----|--|---------|---|
| 5. | a) What is Emulsion? Explain its types. | CO1 LL2 | 4 |
| | b) Give an account on | CO1 LL2 | 6 |
| | i) Electrophoresis of colloids | | |
| | ii) Brownian movement | | |
| 6. | a) Discuss the preparation of Grignard reagent. | CO3 LL2 | 5 |
| | b) Give an account of Ferrocene. | CO3 LL1 | 5 |
| 7. | a) Explain the extraction and purification method of Nickel from sulphide ore. | CO3 LL2 | 6 |
| | b) Explain redox reaction and its types. | CO4 LL1 | 4 |
| 8. | a) Write note on symmetry of elements. | CO2 LL2 | 4 |
| | b) Explain the toxic effects of | CO4 LL1 | 6 |
| | i) Mercury | | |
| | ii) Arsenic | | |

*** **