



DCCB – 201

Second Semester B.Sc. Degree Examination, August/September 2023

(NEP – Freshers and Repeaters)

BIOCHEMISTRY

Chemical Foundation of Biochemistry – II

Time : 2½ Hours

Max. Marks : 60

Instructions : 1) **All Sections are compulsory.**

2) **Section – A** : answer **any five.**

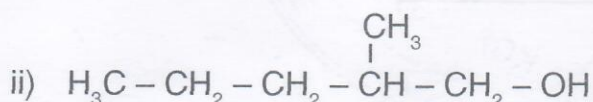
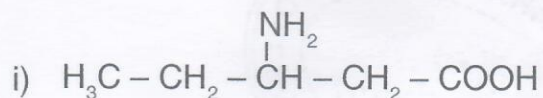
3) **Section – B** : answer **any four.**

4) **Section – C** : answer **any three.**

SECTION – A

1. Answer **any five** of the following. (5×2=10)

- What is first order reaction ? Give an example.
- Define rate constant of a reaction.
- What are lyophilic sols ?
- What are plane polarized light ?
- Mention any two roles of copper in biological system.
- List out the functions of porphyrins.
- Give the IUPAC name for the following compounds :



SECTION – B

Answer **any four** of the following. (4×5=20)

- Explain persistent dialysis with a diagram.
- Differentiate between molecularity and order of a reaction.
- Derive the expression for the velocity constant of a second order reaction of the type. [a ≠ b]

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5. Explain the sources and symptoms of arsenic and aluminium poisoning.
6. Enumerate the application of coordination compounds in photography and metallurgy poisoning.
7. Write a note on free radicals.

SECTION – C

Answer **any three** questions.

(3×10=30)

8. Enumerate the types of isomerism in organic compounds with an example.
9. a) Write a note on optical activity. (5+5)
b) Derive half-life period of a reaction.
10. a) What are homologous series ? Mention its characteristic. (5+5)
b) Write a note on D and L notations in organic compounds.
11. a) What are organolithium compounds ? Explain the preparations. (5+5)
b) Explain geometrical isomerism in coordination compounds.
12. a) Explain the role of colloids in daily life. (5+5)
b) Differentiate between homoleptic and heteroleptic complexes with an example.

