

Reg. No. :

Name :

IV Semester B.Sc. Degree (CBCSS – OBE – Regular/Supplementary/
Improvement) Examination, April 2023
(2019 Admission Onwards)
COMPLEMENTARY ELECTIVE COURSE IN CHEMISTRY/POLYMER CHEMISTRY
4C04CHE/PCH(BS) : Chemistry (For Biological Science)

Time : 3 Hours

Max. Marks : 32

Instruction : Write only in English.

SECTION – A

Very short answer type. **Each** carry 1 mark. Answer **all 5** questions.

1. Name two essential amino acids.
2. Which is the hetero atom in thiophene ?
3. Draw the structure of Vitamin A.
4. Name the metal present in myoglobin.
5. Which enzyme catalyse the hydrolysis of starch into Maltose ? (5×1=5)

SECTION – B

Short answer type. **Each** carries 2 Marks. Answer **any 4** questions out of 6.

6. What will be the product forms when Furan is treated with acetic anhydride in the presence of BF_3 ?
7. What is a zwitter ion ?
8. What are the pyrimidine bases present in RNA ? Draw the structures.
9. Discuss biochemistry of Zinc in biological systems.
10. How the vitamins are classified ?
11. What are anomers ? Give examples. (4×2=8)

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SECTION – C

Short Essay type. **Each** carry 3 marks. Answer **any 3** questions out of 5.

12. What is mutarotation ? Explain.
13. What are the different types of RNA ?
14. Write a brief note on enzyme deficiency diseases.
15. Explain Sorensens formal titration.
16. Draw the structures of progesterone, testosterone and cortisone. (3×3=9)

SECTION – D

Long Essay type. **Each** carry 5 marks. Answer **any 2** questions out of 4.

17. Explain structure and function of haemoglobin and myoglobin.
18. Discuss the different level structure of proteins.
19. How will you convert aldohexose to ketohexose and vice versa ?
20. Discuss briefly about the electrophilic substitution reaction in pyrrole. (2×5=10)