

B. Sc. DEGREE END SEMESTER EXAMINATION MARCH 2017
SEMESTER - 4: COMPLEMENTARY COURSE FOR BOTANY AND
ZOOLOGY

COURSE: U4CPCHE6: ADVANCED BIO-ORGANIC CHEMISTRY

(For Supplementary - 2014 Admission)

Time : Three Hours

Max. Marks: 60

PART A

Answer **all** the questions. Each question carries **1** mark.

1. Coagulation of proteins on treatment with heavy metal salts or heating is called.....
2. Simplest amino acid is
3. Protein part of enzyme after removal of coenzyme is.....
4. Give an example for a non reducing sugar
5. Retinol is the chemical name for which vitamin?
6. The male sex hormones are called.....
7. The acid value of oil or fat indicates.....
8. The alkaloid is present in tobacco. (1 × 8 = 8)

PART B

Answer **any six** questions. Each question carries **2** marks.

9. Give any one colour test for proteins
10. What is meant by 1) gene and 2) codons?
11. Explain: fructose does not contain any reducing group but it reduces Tollen's reagent and Fehling's solution.
12. Give the structure of Vitamin C.
13. What are hormones? Why are they called chemical messengers?
14. Define saponification value of oil.
15. State isoprene rule.
16. What are nucleotides? (2 × 6 = 12)

PART C

Answer **any four** questions. Each question carries **5** marks.

17. Give the Gabriel's phthalimide synthesis of Glycine.
18. Describe the Michaelis-Menten theory of enzyme catalysis.
19. Write a note on industrial application of cellulose.
20. Write a short note on steroid hormones.
21. Write a note on the cleaning action of soaps.
22. What are terpenoids? Give the source of Citral and Geraniol? Give their structure. (5 × 4 = 20)

PART D

Answer **any two** questions. Each question carries **10** marks.

23. Discuss the 1^o and 2^o structures of proteins.
24. How can you convert glucose to fructose and vice versa?
25. Write a note on DNA and RNA and comment on their biological functions.
26. a) Explain the term "artificial hormones"
b) Write a note on detergents (10 × 2 = 20)
