Reg. No…….. Name…… **19U427**

B. Sc. DEGREE END SEMESTER EXAMINATION - MARCH 2019

SEMESTER **– 4: CHEMISTRY (COMPLEMENTARY COURSE FOR BOTANY AND ZOOLOGY)**

COURSE: **15U4CPCHE4.2, ADVANCED BIO-ORGANIC CHEMISTRY – II**

(Common for Regular 2017 admission and improvement 2016/ supplementary 2016/2015 admission)

Time: Three Hours Max. Marks: 60

SECTION A

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

1. Two main constituents of starch are ---------- and ----------.
2. Give an example for neutral amino acid.
3. Deficiency of Vitamin A causes ----------.
4. The number of isoprene units present in Sesquiterpenes.
5. The cis isomer of Geraniol is called ----------
6. The number of ∏ electrons present in furan
7. What does iodine value express.
8. Write one physiological importance of bile acid. (1 x 8 = 8)

SECTION B

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

9. What is a zwitter ion ?Explain
10. Explain Gabriel phthalimide synthesis for glycine
11. Briefly explain about Amine Hormones.
12. Convert Glucose to fructose
13. What is isoelectric point? explain.
14. Explain mutarotation.
15. Describe quaternary structure of proteins.
16. Define saponification value and acid value. (2 x 6 = 12)

SECTION C

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

17. Explain the formation of glucose osazone.
18. Briefly explain the basic principle and uses of TLC (Thin layer chromatography)
19. What you meant by steroid hormones? Explain.
20. What are vitamins? Discuss its biological functions.
21. Describe the structure of Citral.
22. Explain the separation amino acids. (5 x 4 = 20)

SECTION D

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

23. Write a note on the Industrial applications of cellulose.
24. Explain the structure and biological activities of Vitamin A and Vitamin B
25. Explain (a) Fischer Indole synthesis (b)Nitration (c) Bromination and (d) Reimer Tieman formylation of Indole
26. Explain the structure of coniine. (10 x 2 = 20)