

TB144110E

Reg. No: .....

Name: .....

**B. Sc. DEGREE (C.B.C.S.S) EXAMINATION, APRIL 2018**  
**(2014 Admission Supplementary)**  
**SEMESTER IV – COMPLEMENTARY COURSE (CHEMISTRY)**  
**CHE4ABC - ADVANCED BIO – ORGANIC CHEMISTRY**  
**(For Botany, Zoology and Home Science)**

Time: Three Hours

Maximum Marks: 60

**PART A**

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

1. The pH at which the amino acid shows no tendency to migrate when placed in an electric field is known as.....
2. Urease catalyses the hydrolysis of.....
3. .... is an example for oligosaccharide
4. Vitamin A is also called .....
5. Rancidity of oils and fats can be prevented by adding.....

(5x1=5)

**PART B**

**II. Answer any five questions. Each question carries 2 marks**

6. What are globular proteins? Give two examples.
7. What are essential and non essential amino acids? Give examples.
8. Write a note on enzyme specificity.
9. What is gun cotton?
10. What are hormones? Give any two examples.
11. What is meant by saponification value? Explain.
12. Compare simple and complex lipids.
13. Explain the term vulcanization.

(5x2=10)

**PART C**

**III. Answer any five questions. Each question carries 5 marks.**

14. Explain any one method for the separation of amino acids
15. What are the different forms of RNA?
16. How is energy stored in ATP?
17. How is (i) glucose converted into fructose and (ii) fructose converted into glucose?
18. Give the industrial application of cellulose

19. What are the functions of vitamin C.?  
20. How alkaloids are isolated?  
21. Explain the properties of nicotine. **(5x5=25)**

#### **PART D**

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

22. (a) Explain the classification of proteins with examples.  
(b) Describe (i) Gabriel phthalimide synthesis and (ii) Strecker synthesis.
23. (a) Explain the functions of nucleic acid.  
(b) Write an essay on vitamins.
24. (a) Give the reaction of glucose with (i) phenylhydrazine, (ii) semicarbazide (iii) HCN and (iv) bromine water.  
(b) Write a note on mutarotation
25. (a) Write a note on (i) cleansing action of soaps and (ii) iodine value  
(b) Discuss the isolation, properties and structure of conine.

**(2x10=20)**