

Reg. No.....

Name.....

BSc DEGREE END SEMESTER EXAMINATION MARCH 2017

SEMESTER - 6: CHEMISTRY (CORE COURSE)

COURSE: U6CRCHE10: CHEMISTRY OF NATURAL PRODUCTS AND BIOMOLECULES

(For Regular - 2014 Admission)

Time: Three Hours

Max. Marks: 60

PART A

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

1. What do you mean by drying of oil?
2. Give the structure of Geraniol.
3. Give one example of polysaccharide.
4. Name the epimer of glucose.
5. What is denaturation of protein?
6. Draw the structure of Vitamin A
7. How DNA differs from RNA in terms of sugar unit present in it.
8. What is a coenzyme? (1 x 8 = 8)

PART B

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

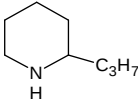
9. How will you show that furan can behave as a diene?
10. What is vulcanization? What are its advantages?
11. What is mutarotation?
12. Explain the zwitter ionic property of amino acid.
13. Define iodine value of fat or oil.
14. Enlist any two physiological functions of cholesterol.
15. What are molecular receptors? Give two examples.
16. What is chichibabin reaction? (2 x 6 = 12)

PART C

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

17. Write the structure, function and disease due to deficiency of Vitamin C.

18. What is Kiliani synthesis? Give an example.
19. Why pyrrole undergo electrophilic substitution at 2- position rather than 3-position. Explain
20. Write briefly on green fluorescent protein.
21. What are the industrial applications of cellulose

22. Coniine is having the structure . How will you determine the structure of the side chain in the coniine molecule? (5 x 4 = 20)

PART D

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

23. Discuss the structure of nicotine. Comment on its physiological action.
24. Account on aromaticity of pyridine. Explain the mechanism with example about the nucleophilic substitution on it.
25. a) Briefly explain the structure of proteins.
b) Discuss the mechanism of enzyme action.
26. a) Discuss briefly on the ring structure of glucose
b) How will you convert fructose into glucose? (10 x 2 = 20)
