



MAR IVANIOS COLLEGE (AUTONOMOUS)
THIRUVANANTHAPURAM

Reg. No. :.....

Name :.....

Second Semester Career Related Degree Examination, June 2015

First Degree Programme under CBCSS

Complementary Course: Biochemistry – II (for Botany and Biotechnology)

AUBB231: General Biochemistry

Time: 3 Hours

Max. Marks: 80

SECTION – A

Answer ALL questions in one or two sentences.

1. Define inversion in Sucrose ?
2. Name the reagent which forms crystalline osazone derivative when reacted with glucose ?
3. What bonds hold together the quaternary structure of a protein ?
4. What is enzyme turn over number ?
5. Name the unusual base found in the T loop of a t – RNA.
6. Draw the structure of maltose.
7. What is an active site on an enzyme ?
8. Name the amino acid that is found abundant in pulses.
9. What is a reducing sugar ?
10. What do you mean by the term Waxes ?

(10 x 1 = 10 Marks)

SECTION – B

Answer any EIGHT questions, not exceeding a paragraph.

11. Why is cellulose called structural polysaccharide ?
12. Difference between cofactor and a prosthetic group.
13. What is the difference between competitive and allosteric inhibition ?

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14. How does pH affect enzyme activity ? Give examples.
15. What are the ways in which enzyme activity can be expressed ?
16. What are the clinical significance of competitive inhibitors ?
17. Write the significance of Michaelis – Menten constant in enzyme activity.
18. What do you mean by Enantiomers ?
19. Draw the structure of cholesterol.
20. What are the major protein denaturing factors ?
21. Give examples for phospholipids.
22. What is the biological significance of proteins ?

(8 x 2 = 16 Marks)

SECTION – C

Short essay type : Answer any SIX questions.

23. List out the four differences between DNA and RNA.
24. What is the difference between a Nucleotide and a Nucleoside ? Draw the structure of deoxy adenosine tri phosphate. dATP
25. Describe the major forces that hold together the protein structure.
26. What are the different form of lipids ?
27. Give an account of different types of RNA.
28. Write a note on classification of enzymes with an example for each class.
29. Explain the lock and key model of enzymatic action.
30. Give any four qualitative test for amino acids.
31. What are sterols ? Explain with suitable examples.

(6 x 4 = 24 Marks)

SECTION – D

Long essay type : Answer any TWO questions.

32. Write an essay on the classification and nomenclature of enzymes.
33. Classify Lipids in detail citing their significance with suitable examples.
34. Describe in detail classification of amino acids with suitable examples.
35. Describe in detail the levels of structural organization in proteins.

(2 x 15 = 30 Marks)

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