



MAR IVANIOS COLLEGE (AUTONOMOUS)
THIRUVANANTHAPURAM

Reg. No. :.....

Name :.....

Second Semester Career Related B.Sc. Degree Examination, June 2016
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. Name of protein found in egg white.
2. Give any two functions of carbohydrates.
3. Differentiate between an aldohexose and a ketohexose with examples.
4. What is a glycoside ?
5. What are simple lipids ?
6. What are essential fatty acids ? Give examples.
7. What are plasmalogens ?
8. Write down the structure of cholesterol. What is the name of cyclic steroid nucleus ?
9. What is a zwitter ion ?
10. What are the nitrogenous bases present in RNA ?

(10 × 1 = 10 Marks)

SECTION – B

Answer any EIGHT questions, not exceeding a paragraph.

11. What are the characteristics of peptide bond ?
12. Write down the nutritional classification of proteins.
13. Differentiate between phospho proteins and nucleoproteins. Give examples.
14. What are purines and pyrimidines ?

15. What is dipalmitoyl lecithin ? What is its biological significance ?
16. What is acid number ? What is its importance ?
17. Write notes on disulphide bond.
18. What are anomers ? Label the anomeric C atom in glucose.
19. What are transport proteins ? Give examples.
20. Differentiate between mono and di saccharides with suitable examples.
21. What is a phosphodiester linkage ?
22. Define specific activity. What is its significance ?

SECTION – C

23. What are the factors affecting enzyme activity ?
24. Explain the structure of different types of RNA.
25. Write down the structure of sucrose and maltose. What is the difference between the two ?
26. Classify amino acids based on metabolic fate with suitable examples.
27. What are the functions of lipids ?
28. Give a brief account of heteropolysaccharides with examples.
29. Explain osazone formation. What is the significance of the reaction ?
30. Differentiate between saponification number and iodine number.
31. Write notes on secondary structure of proteins.

SECTION – D

32. Give a detailed account of structure of starch and glycogen. What are the functions of these polysaccharides ?
33. Explain the classification of lipids with suitable examples.
34. Explain Watson and Crick model of DNA.
35. Explain different types of enzyme regulation.

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