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The Assam Royal Global University, Guwahati

**Royal School of Bio-Sciences
B.Sc. Biochemistry 1st Semester
Semester End Examination, January 2023
Course Title :Molecules of Life
Course Code : BCH152C101**

Time: 3 Hours

Maximum Marks: 70

Note: Attempt all questions as per instructions given.

The figures in the right-hand margin indicate marks.

Section – A

1. Attempt **all questions**. (Maximum word limit 50) **2 x 8**
- a. Name all fat soluble vitamins.
 - b. What do you mean by hypervitaminosis?
 - c. Define optical activity.
 - d. What are asymmetric carbon?
 - e. What are cerebrosides?
 - f. Name 4 most important gangliosides present in brain.
 - g. Draw the general structure of amino acids.
 - h. Why proteins are known as working horses of the cells?

Section – B

2. Attempt **any two** of the following: **6 x 2**
- a. Write a note on chemical foundations of life.
 - b. Write a note on vitamins.
 - a. "Water as a reactant" Justify.
3. Attempt **any two** of the following: **7 x 2**
- a. Write a note on polysaccharides with examples.
 - b. Write a note on disaccharides with examples.
 - c. Write a note on monosaccharides with example.
4. Attempt **any two** of the following: **7 x 2**
- a. Write a note on classification of fatty acids and write a short note on glycolipids.
 - b. Write a note on lipid classification along with its function.
 - c. Write a note on phospholipids.
5. Attempt **any two** of the following: **7 x 2**
- c. Discuss the features of double helical DNA.
 - d. Discuss the physical and chemical properties of amino acid.
 - e. Discuss the classification of proteins.