



**B.A./B.Com./B.S.W./B.B.A. II Semester Degree Examination,  
September/October - 2023**

**CHEMISTRY (OEC)**

**OEC-2 : Molecules of Life**

**(NEP)**

Time : 2 Hours

Maximum Marks : 60

**Note :** Answer *all* sections.

**SECTION - A**

1. Answer the following sub-questions. Each Sub-question carries **one** mark. **10x1=10**
- |                                       |   |
|---------------------------------------|---|
| (a) What are Carbohydrates ?          | 1 |
| (b) What is Mutarotation ?            | 1 |
| (c) What are Proteins ?               | 1 |
| (d) What is Isoelectric Point ?       | 1 |
| (e) Define Enzyme Inhibitors.         | 1 |
| (f) What are Co-enzymes ?             | 1 |
| (g) Expand RNA.                       | 1 |
| (h) What is Calorific Value of food ? | 1 |
| (i) What are Lipids ?                 | 1 |
| (j) Define Anabolism.                 | 1 |

**SECTION - B**

Answer **any four** of the following questions. Each question carries **five** marks.

- |   |                    |
|---|--------------------|
| 2. Explain the general properties of glucose.                       | <b>4x5=20</b><br>5 |
| 3. Explain determination of primary structure of proteins.          | 5                  |
| 4. Write the factors affecting enzyme action.                       | 5                  |
| 5. Explain structure of DNA.  | 5                  |
| 6. Discuss oxidation of food stuff as a source of energy for cells. | 5                  |
| 7. Explain binding role of –OH group in drugs.                      | 5                  |



**P.T.O.**

## SECTION - C

Answer **any three** of the following questions. Each question carries **ten** marks.

**3x10=30**

- |            |  |          |
|------------|--|----------|
| <b>8.</b>  | (a) Explain the classification of Carbohydrates.                   | <b>6</b> |
|            | (b) Write the structure of Sucrose and Maltose.                    | <b>4</b> |
| <b>9.</b>  | (a) Explain the classification of Amino Acids.                     | <b>6</b> |
|            | (b) Discuss importance of proteins in growth and the sustainments. | <b>4</b> |
| <b>10.</b> | (a) Explain Competitive and non Competitive inhibition.            | <b>6</b> |
|            | (b) Discuss Receptor theory.                                       | <b>4</b> |
| <b>11.</b> | (a) Explain Biological importance of triglycerides.                | <b>6</b> |
|            | (b) Explain Replication and Translation.                           | <b>4</b> |
| <b>12.</b> | (a) Discuss Catabolic pathways of Fats and Proteins.               | <b>6</b> |
|            | (b) Write a note on Calorific value of food.                       | <b>4</b> |

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