

B.Sc. II Semester (NEP) Degree Examination, September/October - 2022**CHEMISTRY****OEC-2 : Molecules of Life**

Time : 3 Hours

Maximum Marks : 60

Instruction : Answer **all** Sections.**SECTION - A**

1. Answer the following sub-questions. Each sub-question carries **one** mark. **10x1=10**
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|--|---|
| (a) What are monosaccharides ? | 1 |
| (b) What are amino acids ? | 1 |
| (c) What is isoelectric point ? | 1 |
| (d) Write the open chain structure of Glucose. | 1 |
| (e) What are coenzymes ? | 1 |
| (f) What are drugs ? | 1 |
| (g) Write the structure of Adenine. | 1 |
| (h) What are lipids ? | 1 |
| (i) Define Calorific Value. | 1 |
| (j) Expand ATP. | 1 |

SECTION - BAnswer **any four** of the following questions. Each question carries **five** marks.

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|--|---------------|
| | 4x5=20 |
| 2. Write a note on Mutarotation. | 5 |
| 3. Explain importance of proteins in growth and life sustainments. | 5 |
| 4. Explain the factors affecting the enzyme action. | 5 |
| 5. Discuss Biological Role of DNA. | 5 |
| 6. Write a note on metabolism. | 5 |
| 7. Explain bridging role of –OH group in drugs. | 5 |

SECTION - C

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

3x10=30

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| 8. | (a) | Write a note on Epimerisation. | 6 |
| | (b) | Explain the classification of Carbohydrates. | 4 |
| 9. | (a) | Discuss classification of amino acids. | 6 |
| | (b) | Explain determination of primary structure of proteins. | 4 |
| 10. | (a) | What are Coenzymes ? Discuss their role in biological reaction. | 6 |
| | (b) | Explain the Receptor theory. | 4 |
| 11. | (a) | Explain the Biological Role of RNA. | 6 |
| | (b) | What are lipids ? Discuss biological importance of triglycerides. | 4 |
| 12. | (a) | Outline the catabolic pathway of Carbohydrates. | 6 |
| | (b) | Write a note on Krebs's Cycle. | 4 |

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