

**M.Sc. I Semester Degree Examination, April/May - 2024****BIOTECHNOLOGY****Cell and Molecular Biotechnology****(NEP)**

Time : 3 Hours

Maximum Marks : 70

Note : 1. Answer **any five** of the following questions with **Question No. 1 (Q1)** **compulsory**, each question carries **equal** marks.

2. Draw neat diagrams wherever necessary.

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| 1. | Explain in detail on passive and active transport. | 14 |
| 2. | Give an account of ECM proteins and their functions. | 14 |
| 3. | Write an account on types of cell death events. | 14 |
| 4. | Comment in detail on the structure and different types of DNA. | 14 |
| 5. | Explain the mechanism of translation in prokaryotes. | 14 |
| 6. | Write in detail on the process of cell-cell communication. | 14 |
| 7. | Comment in detail on the post transcriptional modifications of mRNA. | 14 |
| 8. | (a) Write a short note on RT - PCR | 5 |
| | (b) Explain in brief on Lac-operon | 5 |
| | (c) Write a note on chaperon proteins | 4 |

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