



M.Sc. IV Semester Degree Examination, Sept./Oct. - 2024

BIOTECHNOLOGY

Animal Biotechnology (NEP)

Time : 3 Hours

Maximum Marks : 70

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

(ii) Draw neat diagrams wherever necessary.

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| 1. | (a) | Give details on cell culture techniques. | 8 |
| | (b) | Elucidate about cell transformation and malignancy. | 6 |
| 2. | (a) | Write in detail about gene transformation. | 9 |
| | (b) | Explain about cell Synchronization. | 5 |
| 3. | (a) | Illustrate about nuclear transfer and cell cloning. | 9 |
| | (b) | Give details on animal breeding and their potential applications. | 5 |
| 4. | (a) | Explain about culture and maintenance of stem cells. | 7 |
| | (b) | Describe on reconstitution of hematopoietic system. | 7 |
| 5. | (a) | Elucidate the applications of animal biotechnology in animal improvement. | 9 |
| | (b) | Write in detail about applications of animal biotechnology in Medicine. | 5 |
| 6. | (a) | Describe in detail about cell cycle analysis. | 8 |
| | (b) | Write a note on IVF-ET | 6 |
| 7. | (a) | Explain in detail about differentiation and describe lineage differentiation. | 9 |
| | (b) | Explain about the cell therapy and mention its applications. | 5 |
| 8. | (a) | Elucidate on artificial insemination. | 5 |
| | (b) | Describe the process of cell immortalization and transformation. | 4 |
| | (c) | Write about ethics in stem cells research. | 5 |

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