



M.Sc. I Semester Degree Examination, April/May - 2024

BIOTECHNOLOGY

Advanced Genetics

(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. | Give an account on population genetics with suitable examples. | 14 |
| 2. | Describe eukaryotic nuclear genome. | 14 |
| 3. | Give an account of genetic and physical maps. | 14 |
| 4. | Write a detailed account on monogenic disorders with a suitable example. | 14 |
| 5. | Give an account of different prenatal diagnosis and mention its importance. | 14 |
| 6. | (a) Discuss on the difficulties in mapping complex traits. | 7 |
| | (b) Give an account of recombinant models. | 7 |
| 7. | (a) Give an account on genetics of learning disorders with an example. | 7 |
| | (b) Discuss on the somatic cell fusion and its importance. | 7 |
| 8. | (a) Discuss on cytogenetic mapping. | 5 |
| | (b) Discuss on genetics of rheumatoid arthritis. | 5 |
| | (c) Give an account on Amniocentesis. | 4 |

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