



UNIVERSITY OF NORTH BENGAL
B.Sc. Programme 4th Semester Examination, 2021

DSC4-ZOOLOGY

GENETICS AND EVOLUTIONARY BIOLOGY

Full Marks: 40

ASSIGNMENT

The figures in the margin indicate full marks

Answer any four questions

10×4 =40

1. Describe the different types of gene mutations.
2. Describe linkage with reference to complete and incomplete linkage observed in male *Drosophila* sp giving suitable crosses.
3. Describe multiple Alleles with ABO blood group as an example and state the possible phenotypic ratio of the offspring if a women homozygous for blood type B marries a man who is heterozygous for blood type A.
4. Write on the evolutionary history of the modern Horse including all the major changes at different stages of evolution.
5. Giving a suitable definition of chromosomal aberrations, describe different types of chromosomal mutation with examples of each type.
6. Explain the different types of speciation emphasising sympatric speciation in the isolation phenomenon.
7. Discuss on the contrasting views of Lamark and Darwin.
8. Discuss about Mendelian laws with special emphasis on its extension and modifications.

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