



UNIVERSITY OF NORTH BENGAL
B.Sc. Honours 3rd Semester Examination, 2020

CC7- ZOOLOGY

GENETICS

Full Marks: 40

ASSIGNMENT

*The questions are of equal value.
The figures in the margin indicate full marks.*

Answer any four of the following questions

10×4 = 40

1. Describe the Mendel's monohybrid cross and state the principle of inheritance which was established from the result of that cross.
2. Discuss the phenomenon of codominance with a suitable example.
3. Explain the sex-linked inheritance with a cross in *Drosophila*.
4. Explain the mechanism of crossing over by Holiday model with a suitable diagram.
5. Describe in brief the role of genes in primary sex determination in mammals.
6. Write the difference between F^+ and *Hfr* cells and describe the process of mating when each of them conjugates individually with a F^- cell.
7. Describe the four different types of structural chromosomal aberrations with one example of each.
8. Explain the extra-chromosomal inheritance citing the example of the inheritance of kappa particles in *Paramecium*.

—x—