



UNIVERSITY OF NORTH BENGAL
B.Sc. Honours 6th Semester Examination, 2021

DSE3-MICROBIOLOGY

Full Marks: 40

ASSIGNMENT

The figures in the margin indicate full marks.

**The question paper contains two parts DSE-5 and DSE-6.
The candidates are required to answer any *one* from the two parts
Candidates should mention it clearly on the Answer Book.**

DSE-5

Answer any *four* of the following

10×4 = 40

1. Classify biosafety cabinets on the basis of specific performance characteristics and applications. 10
2. Write a short note on Intellectual Property Right (IPR) and World Intellectual Property Rights Organization (WIPO). 10
3. Describe the AERB and RES guidelines for use of radioisotopes in laboratory and its precautions. 10
4. Write short notes on patent and copyright. 5+5
5. Discuss the roles of Institutional Biosafety Committee for GMO applications for food and agriculture. 10
6. Write short notes on Trademark and Patent infringement. 5+5

DSE-6

Answer any *four* of the following

10×4 = 40

1. Explain the four types of chromosomal aberrations with suitable diagram. 10
2. Write short notes on polytene chromosome and Klinefelter syndrome. 10

3. Explain in detail the mechanism of dominance and recessive epistasis. 10
4. Write short notes on incomplete dominance and co-dominance. 10
5. *E. coli* and *S. cerevisiae* has been chosen as model organisms in genetic analysis. Explain why? 10
6. Determine the possible mode of inheritance assigning the genotype of all individual given in the following pedigree. Justify your answer. 10

