



UNIVERSITY OF NORTH BENGAL
B.Sc. Honours 1st Semester Examination, 2020

CC2-BOTANY

BIOMOLECULES AND CELL BIOLOGY

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 each within 300 words 10×4 = 40

1. Describe in details the double helical structure of DNA as proposed by Watson and Crick. Write a short note on the clover leaf model of t- RNA. 7+3=10

2. What is Michaelis Constant? Give the mathematical derivation of Michaelis-Menten equation and bring out the relationship between observed velocity, maximum velocity and substrate concentration. 2+8=10

3. Write a comprehensive account on the ultrastructure of the nuclear pore complex with suitable diagram. 10

4. Distinguish between monosaccharide and oligosaccharide, giving one example from each group. What are the specific properties of monosaccharide? Give the structure of a heteropolysaccharide. 3+5+2=10

5. Write a comprehensive account on the roles of different check points in the regulation of cell cycle. 10

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