



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

CC8-BOTANY

MOLECULAR BIOLOGY

Full Marks: 40

ASSIGNMENT

*The figures in the margin indicate full marks
Candidates should answer in their own words and adhere to the word limit as practicable.
All symbols are of usual significance.*

Answer any four of the following questions each within 300 words 10×4 = 40

1. State the reasons for considering DNA replication as 'Semi-conservative and Bidirectional'. Illustrate the theta mode of DNA replication briefly with suitable diagram. 10
2. State the roles specified by structural genes of lac operon. How does lactose promote transcription of lac operon? 10
3. Define Genetic code. Discuss the important features of Genetic code. 10
4. State the role of aminoacyl tRNA synthetases in protein synthesis. Give stepwise description of elongation cycle of protein synthesis with suitable diagrams. 10
5. Describe the spliceosome mediated splicing of mRNA in eukaryotes with proper diagrams. 10

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