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(20721) Roll No. .....

B.Sc. (Biotech.)-II Year

NS-3466 (CV-II)

B.Sc. (Biotechnology) Examination, June-2021

Molecular Biology

(B-203)

B.Sc. (Bio-Tech)

Time : 1½ Hours] ***[Maximum Marks : 50***

Note : Answer any **two** questions. **All** questions carry equal marks. Draw diagrams wherever necessary.

1. Describe the genetic code and its properties.
2. Describe the protein synthesis in Prokaryotes.
3. Describe different experiments to prove that DNA replication is semiconservative.
4. Describe the difference between
   (i) DNA and RNA
   (ii) RNA Palymerase in Prokaryotes and Eukaryotes
5. Describe the gene regulation in Prokaryotes.
6. Describe short notes on the following-
   (i) Satellite DNA
   (ii) Central Dogma
   (iii) Cryptic genes
   (iv) Overlapping genes
7. Write short notes on any two of the following-
   (i) RNA processing in Eukaryotes
   (ii) Tryptophan operon
   (iii) DNA Recombination

8. Describe different mechanisms for degradation of m-RNA in Eukaryotes.

9. Describe the ultrastructure and functions of chromosome.

10. Describe the difference between any two of the following:

    (i) Exons and Introns

    (ii) Homeobox and Pribnowbox

    (iii) Repetitive DNA and Satellite DNA