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(20623)

Roll No. .....

B.Sc. (Bio-Tech.)- II Year

NS-3466

B.Sc. (Biotechnology) Examination,

June-2023

MOLECULAR BIOLOGY

(B-203)

B.Sc. (Biotech.)

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

Note : Attempt any **five** questions. All questions carry equal marks. Draw diagrams wherever necessary.

1. Describe the replication process of DNA in Prokaryotes. 10

2. Write short notes on *any four* : 4×2.5=10

   (i) Spliceosome

   (ii) Capping

   (iii) Histones

   (iv) Intron

   (v) Methylation

3. Describe the structure of DNA in detail and also write double helical model of DNA. 10

4. Write on *any two* of the following : 2×5=10

   (i) Types of RNA

   (ii) RNA processing

   (iii) Nucleosome concept

5. Describe the translation process in Eukaryotes. 10

6. What is Genetic code ? Describe all the characteristics of Genetic code. 10

7. Write short note on (*any two*) : 2×5=10

   (i) Operon model

   (ii) Tryptophan operon

   (iii) Wobble hypothesis

8. Write short note on *any four* : 4×2.5=10

(i) Split genes

(ii) Overlapping genes

(iii) Prokaryotic genes

(iv) Eukaryotic genes

(v) Cryptic genes

9. Write on : 2×5=10

(i) Insertion Element

(ii) Transposon

10. Write short note on *any four* : 4×2.5=10

(i) Pribnow box

(ii) TATA box

(iii) DNA polymerase in Prokaryotes

(iv) DNA polymerase in Eukaryotes

(v) RNA polymerase