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(21224) Roll No.

M.Sc. (Bio.Tech.)-I Sem.

NP-3331

M.Sc. (Bio-Technology)

Examination, Dec.-2024

Cytogenetics and Molecular Genetics

(H-102)

M.Sc. (Bio-Tech)

Time : 3 Hours] *[Maximum Marks : 50*

Note : Attempt **all** the section as per given instructions.

Section-A

(Very Short Answer Questions)

Note : Attempt all **five** questions. Each question carries 2 marks. Very short answer should not exceed 75 words.

2×5=10

P.T.O.

Define the following terms:

1.	Point mutation	2
2.	Double reduction	2
3.	Exons and introns	2
4.	Split genes	2
5.	C-value paradox	2

Section-B

(Short Answer Questions)

Note : Attempt any **two** questions out of the following 3 questions. **Each** question carries **5** marks. Short answer is required not exceeding 200 words.

5×2=10

6.	Enlist different types of DNA and their specific characteristics.	5
7.	Write differences between DNA and RNA.	5
8.	Chromosome ultra structure.	5

Section-C

Answer Questions)

Note : Attempt any **three** questions out of the following **five** questions. Each question carries **10** marks. Answer is required in detail. 10×3=30

9. What is DNA replication? Discuss the different models of DNA replication. 10

10. Define genetic code. Write about the deciphering of code in vitro and in vivo.

10

11. Discuss in detail about the DNA and RNA as genetic material giving suitable experiments. 10

12. Describe nucleosome structure and role of histones in nucleosome. 10

13. With the help of suitable diagrams describe reduction division. 10