

12. Describe nucleosome structure and role
of histones in nucleosome. 10
13. With the help of suitable diagrams
describe reduction division. 10

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(21224)

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

(Printed Pages 3)

Roll No. 240686334005.

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 |

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Section-C

(Long 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 |

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P.T.O.