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(Printed Pages 3)

(20426)

Roll No. . ^

B.Sc. (Biotech)-II year

3467

B.Sc. (Biotechnology)

Examination, April-2026

MOLECULAR GENETICS AND

CYTOGENETICS

(B-204)

B.Sc. (Bio-Tech.)

Time : Three Hours]

[Maximum Marks : 50

Note : Attempt any **five** questions. **All** questions carry equal marks.

1. What is the significance of recombination events on r11 locus in T4 phage, discuss in detail. 10

2. ✓ Write short notes : 5×2=10

(a) Modern gene theory

(b) Meiotic pairing and phenotypic effects

P.T.O.

3. Write short notes on : $5 \times 2 = 10$

(a) Multiple translocations

(b) Monosomy

4. Write a detailed note on production, classification and application of polyploidy. 10

5. Write notes on : $5 \times 2 = 10$

(a) Cytological mapping

(b) Determination of linkage groups

6. Write a detailed note on breeding work done in India on maize. 10

7. Write notes on : $5 \times 2 = 10$

(a) SSR

(b) VNTR

8. Write a detailed note on single nucleotide polymorphism. Give certain examples to explain how it occurs. 10

9. Write notes on : $5 \times 2 = 10$

(a) Diploid mapping

(b) Inversions

10. Write notes on : $5 \times 2 = 10$

(a) Determination of map distance

(b) Tetrasomics
