## UPB/CT/5A09

### B.Sc. DEGREE EXAMINATION,NOVEMBER 2018 III Year V Semester Core Major Paper-IX GENETICS AND PLANT BREEDING

#### Time : 3 Hours

### Max.marks:75

Section A  $(10 \times 2 = 20)$  Marks

#### Answer any **TEN** questions

- 1. Test cross.
- 2. Back cross.
- 3. Heamophilia.
- 4. Hypertrichosis.
- 5. Multiple alleles.
- 6. DNA probe.
- 7. Euploidy.
- 8. Klinefelters syndrome.
- 9. Population genetics.
- 10. DNA finger printing.
- 11. Hardy Weinberg principle.
- 12. Germplasm storage.

#### Section B $(5 \times 5 = 25)$ Marks

#### Answer any **FIVE** questions

- 13. Write short notes on non allelic interaction.
- 14. Explain the different types of sex determination in plants.
- 15. Comment on chromosome theory of inheritance.
- 16. Describe about the gene therapy with an example.
- 17. Define male sterility with an example.
- 18. Explain polyploidy breeding and its application.
- 19. Describe briefly about Mutation breeding.

# Section C $(3 \times 10 = 30)$ Marks

## Answer any **THREE** questions

- 20. Comment on Polygenic inheritance and Pseudoalleles.
- 21. Write an essay on Cytoplasmic Inheritance.
- 22. Write an essay on Linkage and crossing over.
- 23. Comment on heterosis and hybrid seed production.
- 24. Write an essay on mass and pure line selection.

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