

(DBOT 03)

M.Sc. DEGREE EXAMINATION, MAY 2011.

First Year

Botany

Paper III — CYTOLOGY, GENETICS AND PLANT
BREEDING

Time : Three hours

Maximum : 100 marks

SECTION A — (5 × 8 = 40 marks)

Answer any FIVE of the following.

1. Significance of mitosis.
2. Karyotype analysis
3. Duplication.
4. Aneuploids.
5. Pseudoalleles.
6. Chi — square test.
7. Pedigree method.
8. Hybridization.

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SECTION B — ($4 \times 15 = 60$ marks)

Answer all the FOUR questions.

9. (a) Write an essay on comparative study of prokaryotic and eukaryotic cells.

Or

- (b) Give an account on Euchromatin and heterochromatin.

10. (a) Write notes on special types of chromosomes.

Or

- (b) Give an account on evolution of major crop plants.

11. (a) Describe the principles of Mendelian inheritance.

Or

- (b) Give an account on types of mutations.

12. (a) Write an essay on Pure line selection.

Or

(b) Describe clonal selection and back cross method.

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