Register Number :

Name of the Candidate :

5 7 0 4

M.Sc. DEGREE EXAMINATION, 2009

(BOTANY)

(SECOND YEAR)

(PAPER - VIII)

220. CELL BIOLOGY, GENETICS, PLANT BREEDING, EVOLUTIONARY BIOLOGY AND BIOMETRY

(*Including Lateral Entry*)

December]   [Time : 3 Hours

Maximum : 100 Marks

SECTION - A   (8 × 3 = 24)

Answer ALL questions.

Each answer should not exceed FIFTY words.

All questions carry equal marks.

1. Grafting.

2. Synopsis.

Turn Over

4

SECTION - C   (2 × 20 = 40)

Answer ALL questions.

Each answer should not exceed 1,200 words.

All questions carry equal marks.

15. (a) Describe the role of polyploids in evolution.

(OR)

(b) Describe modern synthetic theories on evolution with special reference to speciation.

16. (a) Write about mean, median and mode and their applications in biology.

(OR)

(b) Write an essay on cytology in relation to taxonomy.

3. Standard deviation.

4. Nuclesome.

5. Linkge.

6. Apomixis.

7. Allopolyploids.

8. Genetic maps.

SECTION - B   (6 ×6 = 36)

Answer ALL questions.
Each answr should not exceed 300 words.
All questions carry equal marks.

9. (a) Discuss the structure and organization of chromosomes in eukaryotes.

(OR)

(b) Explain the cytology of polyploids.

10. (a) Ellaborate on the architectural changes of chromosomes and their role in evolution.

(OR)

(b) Describe synaptinemal complex.

11. (a) Explain the interaction of genes and their types.

(OR)

(b) Write about miosis.

12. (a) Write notes on multiple alleles and linkage.

(OR)

(b) Describe the mechanism of crossing over.

13. (a) Discuss origin of life.

(OR)

(b) Discuss extra chromosomal inheritance.

14. (a) Explain sex linkage.

(OR)

(b) Describe point mutation.

Turn Over