

4

SECTION - C (2 × 20 = 40)

Answer ALL questions.

Each answer should not exceed 1,200 words.

All questions carry equal marks.

15. (a) Write elaborately on the genetic variability in population.

(OR)

- (b) Elaborate on prebiotic environment and molecular evolution.

16. (a) Discuss sampling techniques and frequency distribution.

(OR)

- (b) Write in detail about DNA as genetic material.

Register Number :

Name of the Candidate :

2 0 1 0

M.Sc. DEGREE EXAMINATION, 2010

(BOTANY)

(SECOND YEAR)

(PAPER - VIII)

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

May]

[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. Autopolyploids.
2. Mode.
3. Nucleolus.

Turn Over

2

4. Point mutation.
5. Standard error.
6. Budding.
7. Multiple alleles.
8. Idiogram.

SECTION - B (6 × 6 = 36)

Answer ALL questions.

Each answer should not exceed 300 words.

All questions carry equal marks.

9. (a) Describe the bio-chemistry and organization of nuclear membrane.
(OR)
(b) Describe the organization and morphology of nucleus.
10. (a) Describe the chromosomal changes during Mitosis.
(OR)
(b) Explain the cytology of polyploids.

3

11. (a) Explain karyotype analysis.

(OR)

- (b) Discuss chromosome theory of heredity.

12. (a) Write critically on quantitative inheritance.

(OR)

- (b) Write about chromosome mapping.

13. (a) Describe the different methods of vegetative propagation.

(OR)

- (b) Explain the theory of pure line selection.

14. (a) Give an account on cell cycle.

(OR)

- (b) Explain cytology in relation to taxonomy.

Turn Over