

22P229

(Pages: 2)

Name:

Reg.No:

SECOND SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2023

(CBCSS - PG)

(Regular/Supplementary/Improvement)

**CC19P BOT2 C05 - CYTOGENETICS, GENETICS, BIOSTATISTICS, PLANT BREEDING AND
EVOLUTION**

(Botany)

(2019 Admission onwards)

Time : 3 Hours

Maximum : 30 Weightage

Part-A

Answer any **four** questions. Each question carries 2 weightage.

1. What are structural heterozygotes?
2. What are homologous chromosomes?
3. Give an account on IS and Tn elements.
4. Explain Degrees of freedom.
5. Explain SPAR.
6. Make a note on Heterosis.
7. Give an account on allopatric and sympatric speciation.

(4 × 2 = 8 Weightage)

Part-B

Answer any **four** questions. Each question carries 3 weightage.

8. Write notes on FISH and GISH.
9. Explain lampbrush chromosomes. Mention their significance
10. Explain Quantitative inheritance with an example
11. Give an account on genetic disorders.
12. Elucidate the application of statistics in biological research.
13. Give an account on polyploidy breeding.
14. Explain biometrical techniques in plant breeding.

(4 × 3 = 12 Weightage)

Part-C

Answer any *two* questions. Each question carries 5 weightage.

15. Explain mapping of genes in bacteria and bacteriophages.
16. Describe in detail central tendencies.
17. Explain objectives, techniques, consequences and major achievements of hybridization.
18. Explain evidences of evolution.

(2 × 5 = 10 Weightage)
