

21P229

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Name:

Reg.No:

SECOND SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2022

(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 homologous chromosomes?
2. What are superchromosomes?
3. Explain Transposable elements with example.
4. Explain coefficient of regression.
5. Explain SPAR.
6. Cite the major achievements of CPCRI.
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. Explain polyploidy and their significance in plant breeding and evolution.
9. Explain chromosome microdissection and microcloning.
10. Explain transduction and mapping of genes in bacteria.
11. Discuss Human pedigree analysis.
12. Explain different kinds of measure of central tendencies.
13. Give an account on polyploidy breeding.

14. Explain briefly on plant breeding for pest resistance.

(4 × 3 = 12 Weightage)

Part-C

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

15. Explain extra nuclear inheritance. Add a note on Mitochondrial and chloroplast genome and its utility.

16. Explain importance of statistics in biological research.

17. Explain history, types principles and major achievements of plant introduction agencies in India.

18. What does theory of evolution say? Comment this in light of various evidence for evolution.

(2 × 5 = 10 Weightage)
