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C 42741 (Pages : 2) Name.....

Reg. No.....

SECOND SEMESTER M.Sc. DEGREE (REGULAR/SUPPLEMENTARY) EXAMINATION, APRIL 2023

(CBCSS)

Botany

BOT 2C 05—CYTOGENETICS, GENETICS, BIOSTATISTICS PLANT BREEDING AND EVOLUTION

(2019 Admission onwards)

Time : Three Hours Maximum : 30 Weightage

Part A

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

1. Define a Karyotype.
2. What is cytoplasmic male sterility ?
3. What is B- chromosome ? Write its significance.
4. Describe micro-cloning.
5. What is pedigree analysis ?
6. Explain modern synthetic theory of evolution.
7. Define Domestication.

(4 × 2 = 8 weightage)

Part B

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

8. Write a short account on the centers of crop genetic diversity
9. What are the different probability distributions ?
10. Explain how mutation and migration change the equilibrium of a population
11. Write a short account on euploidy

Turn over

12. Name two statistical softwares used in biological analysis and their significance

13. Write the merits and demerits of mutation breeding.

14. Briefly explain reproductive isolation and origin of species.

(4 × 3 = 12 weigh

Part C

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

15. Give an account on the mobile genetic elements.

16. Write an essay on the test sof significance used in statistical analysis.

17. Write an account on the chromosome structural aberrations and their significance in evolu

18. Write a short essay on the modern methods of plant breeding.

(2 × 5 = 10 weig