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BOH 551

IV Semester M.Sc. Degree Examination, September/October 2022
(CBCS)
BOTANY
Plant Breeding

Time : 3 Hours

Max. Marks : 70

I. Answer **any three** of the following. **Each** answer **not** exceeding **five** pages. **(3×10=30)**

- 1) Discuss the present status and future prospects of plant breeding as both an Art and Science.
- 2) Give an account of nature of gene action and components of genetic variation.
- 3) Write a note on significance of continuous variation and qualitative traits.
- 4) Explain the effect of self pollination on the genotype and its achievement in plant breeding.
- 5) What is polyploidy ? Mention its types, induction, applications and limitations.

II. Answer **any six** of the following. **Each** answer **not** exceeding **three** pages. **(6×5=30)**

- 6) Elucidate the morphological contrivances promoting Allogamy and Autogamy.
- 7) Merits and demerits of germ plasm collection.
- 8) Explain mutation breeding with examples.
- 9) Hybrids and synthetic variation.
- 10) Objectives and types of hybridization.
- 11) Applications of wide crosses in plant breeding.
- 12) Breeding for pest resistance.
- 13) Centres of origin of crop plants.

P.T.O.



III. Answer **any five** of the following. **Each** answer **not** exceeding **one** page. **(5×2=10)**

- 14) Male sterility
 - 15) Pure line theory
 - 16) Heterosis and its types
 - 17) Embryo rescue technique
 - 18) Domestication
 - 19) Vegetative reproduction
 - 20) Self incompatibility.
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