M.Sc-II Botany Semester-IV,
Paper-IV, 15/06/2023

(Time: 2 ½ Hours) **(Marks 60)**

N.B**: 1.All questions are compulsory.**
2. Figures to right indicate full marks.
3. Draw neat laballed diagrams wherever necessary.

Q.1 What are the aims and objectives of plant introduction and acclimatization. **(12)**

OR

Q.1 Discuss with reference to plant breeding i) Selection & ii) hybridization **(12)**

Q.2 Give an account of the consequences of segregation in distant hybrids **(12)**

OR

Q.2 Describe the production of unreduced gamates by Sexual polyploidization **(12)**

Q.3 Explain in detail Agrobacterium mediated transformation. **(12)**

OR

Q.3 What are binary vectors? Explain their production. Add a note on its uses. **(12)**

Q.4 Describe any one PCR based molecular marker **(12)**

OR

Q.4 Explain the production of Bio Phamaceuticals in transgenic plants **(12)**

Q.5 Write short notes on **any three** of the following: **(12)**

a. Back cross method in hybridization
b. Aims and objectives of plant breeding
c. Cytological basis of sterility
d. Production of golden rice
e. Factors affecting particle bombardment
f. Future of edible vaccines

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