

MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END THEORY EXAMINATION

B.Sc.(Hons.) Agri-Business Management

Semester	: 1 (New)	Term	: First	Academic Year	: 2024-25
Course No.	: GPB-111	Title	: Introduction to Genetics and Plant Breeding		
Credits	: 2(1+1)				
Day & Date	: Saturday, 15.02.2025	Time	: 10:00 to 12:00 hrs.	Total Marks	: 40

- Note :**
1. Solve ANY EIGHT questions from SECTION 'A'.
 2. All questions from SECTION 'B' are compulsory.
 3. All questions carry equal marks.
 4. Draw neat diagram wherever necessary.

SECTION 'A'

- Q.1 Define Chromosome. Explain the functions of chromosome.
- Q.2 Give differences between Mitosis and Meiosis.
- Q.3 State the Law of Segregation with suitable example.
- Q.4 Write in detail about sexual modes of reproduction.
- Q.5 Define Pollination. Write in detail mechanisms promoting self-pollination.
- Q.6 Give differences between Gametophytic and Sporophytic systems of self incompatibility.
- Q.7 Define Male sterility. Explain different types of male sterility system.
- Q.8 Give the procedure of Bulk method of breeding.
- Q.9 Give the main features of clones.
- Q.10 Describe the types of mutation.

SECTION 'B'

- Q.11 Define the following terms:
- 1) Plant Breeding
 - 2) Allozymes
 - 3) Karyotype
 - 4) Mutagen
- Q.12 Write the contribution of the following Scientists:
- 1) M.S. Swaminathan
 - 2) Kölreuter
 - 3) Strasburger
 - 4) R. Hooke

