

MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END THEORY EXAMINATION

B.Sc.(Hons.) Agriculture

Semester	: V	Term	: First	Academic Year	: 2024-25
Course No.	: GPB 355	Title	: Crop Improvement-I (<i>Kharif</i> Crops)		
Credits	: 2 (1+1)				
Day & Date	: Thursday, 17.10.2024	Time	: 14:00 to 16:00 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 Plant genetic resources. Explain in brief the kinds of germplasm.
- Q.2 Define Pedigree. Explain in brief the procedure of pedigree breeding method.
- Q.3 Describe different mechanisms of drought resistance in crop plants.
- Q.4 Describe hybrid seed production technology in maize.
- Q.5 Give the botanical name and centre of origin of the following crops:
- a) Sorghum b) Soybean c) Pigeon pea d) Cotton
- Q.6 Define Emasculation. Describe various methods of emasculation.
- Q.7 Describe different mechanisms of disease resistance in crop plants.
- Q.8 Differentiate between (Any Two):
- a) Qualitative and Quantitative characters
- b) Pureline and Mass selection
- c) Vertical and Horizontal resistance
- Q.9 Give the important features of crop ideotype for rice and cotton.
- Q.10 Write short notes on (Any Two):
- a) Germplasm conservation b) Quality traits of oilseeds c) Antibiosis

SECTION 'B'

- Q.11 Define the following terms:
- 1) Landraces 2) Detasseling 3) Heritability 4) Ideotype
- Q.12 Fill in the blanks:
- 1) Superiority of F_1 over its parents, is called _____.
- 2) The mechanism, _____ promotes cross-pollination in bajra.
- 3) _____ seeds stored at a low temperature without losing their viability.
- 4) The toxic substance present in soybean is _____.

