

MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END THEORY EXAMINATION

B.Sc.(Hons.) Horticulture

Semester	: V (New)	Term	: First	Academic Year	: 2022-23
Course No.	: H/VS 356	Title	: Breeding of Vegetable, Tuber and Spice Crops		
Credits	: 3(2+1)				
Day & Date	: Friday, 03.02.2023	Time	: 14:00 to 17:00 hrs.	Total Marks	: 80

- 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 Write in short objectives of vegetable breeding.
- Q.2 Enlist different components of genetic resources. Describe *in-situ* conservation in short.
- Q.3 Define pollination. Describe the various mechanisms that promote self and cross pollination.
- Q.4 Comment on turmeric on the following points:
- a) Origin and forms
 - b) Breeding procedures with achievements
- Q.5 Write short notes on (Any Two):
- a) Plant introduction
 - b) Male sterility
 - c) Development of seedless watermelon
- Q.6 Comment on tomato improvement with different breeding methods.
- Q.7 Write in detail crop improvement in pea through different breeding methods with achievements.
- Q.8 Define self-incompatability. Enlist different types of self-incompatability in vegetable crops with examples.
- Q.9 Explain various mechanisms of disease resistance in crop plants. Enlist methods of breeding for disease resistance in vegetable crops.
- Q.10 Comment on the following points :

Crop	Origin	Chromosome number	Family	Botanical name
Onion				
Okra				

(P.T.O.)

SECTION 'B'

Q.11 Define the following terms:

- | | | | |
|----------------------|----------------|--------------|----------------|
| 1) Haploid | 2) Inheritance | 3) Metaxenia | 4) Backcross |
| 5) Synthetic variety | 6) Gynoeccious | 7) Homogamy | 8) Inbred line |

Q.12 Fill in the blanks:

- 1) Mating between closely related individuals is known as _____.
- 2) Advanced generation testing starts from _____.
- 3) Okra is a _____ pollinated crop.
- 4) Headquarters of IPGRI is located at _____.
- 5) Centre of origin of tomato is _____.
- 6) The cross between different species of the same genus is known as _____.
- 7) Mutation theory was put forward by _____.
- 8) The main objective of hybridization is to create _____ variation.

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