MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END THEORY EXAMINATION
B.Sc.(Hons.) Horticulture

Semester	: VI (New)	Term	: Second	Academic Year	: 2023-24
Course No.	: H/FL 364	Title	: Breeding and Seed Production of Ornamental Plants		
Credits	: 3 (2+1)				
Day & Date	: Tuesday, 23.04.2024	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 Explain the scope and importance of ornamental crop breeding in India.

Q.2 Write down the objectives and different techniques of ornamental plant breeding.

Q.3 a) Enlist the specific breeding objectives of rose.

b) Describe in short the steps followed in development of hybrids in rose.

Q.4 Explain floral biology of jasmine and describe mutation breeding in jasmine.

Q.5 a) Write in short about floral biology of china aster.

b) What are the different breeding methods followed in china aster?

Q.6 Enlist the breeding objectives and explain mutation breeding in gladiolus with example.

Q.7 Define Heterosis. Explain in short genetic cause and measurement of heterosis.

Q.8 a) Elaborate the role of male sterility in hybridization.

b) Write in short the role of male sterility in marigold F_1 hybrids.

Q.9 Write short notes on (Any Two):

a) Seed production of open pollinated flower crops

b) Steps involved in seed production of open pollinated flower crops

c) Modes of inheritance pattern in disease resistance

Q.10 a) Enlist the different breeding objectives of orchid.

b) Describe in short about different breeding methods used in orchid.

(P.T.O.)

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SECTION 'B'

Q.11 a) Do as directed:

1) Write down the family of petunia.

2) Write down the botanical name of carnation.

3) Define: Nucleus seed

4) What do you mean by Off type plant?

b) Spell-out the following abbreviations:

1) IIHR

2) IARI

3) NSC

4) NBPGR

Q.12 Fill in blanks:

1) _____ is the process of transfer of pollens from male part of flower to the stigma of different flower.

2) Fertilization is the process of development of _____ to seed after pollination.

3) The early maturity of the gynoecium than androecium is called as_____.

4) The flower which contains functional male and female parts is known as _____.

5) Horizontal resistance is also called as _____ resistance.

6) The term 'Mutation' was first mentioned by _____.

7) The major problem in commercial cultivation of gladiolus is a wilt disease, which is caused by _____.

8) In lilium, _____ is used as explant source for propagation through *in vitro* techniques.

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