MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END THEORY EXAMINATION

B.Sc.(Hons.) Horticulture

Semester	: IV (New)	Term	: Second	Academic Year	: 2022-23
Course No.	: H/FS 246	Title	: Breeding of Fruit and Plantation crops		
Credits	: 3 (2+1)				
Day & Date	: Tuesday, 04.07.2023	Time	: 09:00 to 12:00 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 Describe in brief the history and importance of fruit and plantation crop breeding.

Q.2 Describe the objectives of fruit and plantation crops breeding with suitable examples.

Q.3 Describe the procedure of clonal selection with suitable examples in Mango and Sapota.

Q.4 a) Write in short about apomixis and nucellar polyembryony in Citrus.

b) Write in brief about mechanism of self incompatibility observed in fruit crops with suitable examples.

Q.5 Write short notes on (Any Two):

a) Centre of origin

b) *In vitro* breeding tools in fruit and plantation crops

c) Agencies of pollination in fruit crops

Q.6 Write in brief the procedure of hybridization in Apple and Cashew.

Q.7 Write in brief the breeding strategies of the following crops (Any Two):

a) Papaya b) Strawberry c) Date palm

Q.8 Describe in brief the inheritance patterns in Guava and Grapes.

Q.9 a) Discuss mutation breeding in Banana with example.

b) Explain in brief breeding methods and achievements in Coconut.

Q.10 Complete the following table:

Crop	Chromosome number (2n)	Origin	Mode of pollination	Improved varieties
Ber				
Tea				

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SECTION 'B'

Q.11 Define the following terms:

1) Dichogamy
2) Male sterility
3) Anther culture
4) Emasculation
5) Fruit breeding
6) Heterostyly
7) Polyploidy
8) Floral biology

Q.12 Fill in the blanks:

1) Chromosome number (2n) of Aonla is _____.
2) 'Kinnow' hybrid of Mandarin is developed by the Scientist named _____.
3) Chromosome number (2n) of Pear is _____.
4) Coconut Development Board is located at _____ in India.
5) The origin of Cashew is _____.
6) _____ is a variety of Karonda, developed by Dr.BSKKV, Dapoli.
7) The origin of Peach is _____.
8) 'Katol Gold' is a variety of _____.

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