MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END THEORY EXAMINATION

B.Sc.(Hons.) Horticulture

Semester	: **IV (New)**	Term	: **Second**	Academic Year	: **2021-22**
Course No.	: **H/VS 244**	Title	: **Precision Farming and Protected Cultivation**		
Credits	: **3 (2+1)**				
Day & Date	: **Friday, 23.09.2022**	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 Describe the importance and scope of precision farming in horticulture.

Q.2 Give the classification of greenhouse based on its shape.

Q.3 Write briefly the cultivation of tomato under protected cultivation on following points:

a) Soil and climate
b) Varieties
c) Nursery management
d) Intercultural operations and irrigation

Q.4 Define plant growth media. Describe the different growing media used for protected cultivation in vegetable crops.

Q.5 Explain the cultivation of cucumber in greenhouse on the following points:

a) Raising of nursery
b) Training and pruning
c) Fruit thinning
d) Harvesting and yield

Q.6 Write in brief about the instruments required for measuring different parameters of greenhouse.

Q.7 Write short notes on (Any Two):

a) Criteria for selecting media
b) Advantages of greenhouse technology
c) Plant response to greenhouse environment

Q.8 Write short notes on (Any Two):

a) Plastic Low Tunnels
b) Geographical Information System (GIS)
c) Yield mapping in horticultural crops

Q.9 Discuss in detail the different types of irrigation systems used in greenhouses.

Q.10 Describe in brief the production of capsicum in greenhouse on the following points:

a) Transplanting of seedlings
b) Varieties and hybrids
c) Training and pruning
d) Harvesting and yield

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SECTION 'B'

Q.11 Fill in the blanks:

1) Bomby is a coloured variety of _____.
2) _____ is a soil less media, absorbs water up to 10 to 20 times of its weight.
3) _____ is the application of fertilizers, soil amendments or other water soluble products through an irrigation system.
4) The most suitable type of greenhouse in Indian conditions is _____.
5) For higher crop yield, optimum CO_2 concentration under greenhouse condition should be_____ ppm.
6) _____ is a component of greenhouse that collects the drain rain water and snow, which is placed at an elevated level between two spans.
7) Plants producing only female or pistillate flowers are called _____.
8) Growing of vegetables in the media other than soil is called _____.

Q.12 State True or False:

1) Greenhouse technology is the science of providing favorable environmental conditions to the plants.
2) Hydroponics is also called Water culture.
3) Uneven span type of greenhouse is constructed on hilly terrain.
4) Coco peat is a soil media.
5) Determinate varieties of tomato are suitable for greenhouse cultivation.
6) A greenhouse irrigation system is a type of micro-irrigation system.
7) Ultra violet light is suitable for photosynthesis effect.
8) In protected cultivation, most F_1 vegetable hybrids are grown.

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