



**BRAINWARE UNIVERSITY**

**Term End Examination 2024-2025**

**Programme – B.Sc.(Ag)-Hons-2022**

**Course Name – Hi-tech Horticulture**

**Course Code - EC-BAG671A(T)**

( Semester VI )

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**Brainware University**

Barasat, Kolkata -700125

**Full Marks : 50**

**Time : 2:0 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

### Group-A

(Multiple Choice Type Question)

$$1 \times 20 = 20$$

1. Choose the correct alternative from the following :

- (i) Show the correct answer: Chemical thinning of blossoms in fruit crops can be effectively and cheaply done by spraying which chemical substance?
  - a) NAA
  - b) IAA
  - c) IBA
  - d) ABA
- (ii) The practice of complete removal of the trunk in trees like Cinchona leaving 30-35 cm stump alone is summarized as:
  - a) Lopping
  - b) Pollarding
  - c) Coppicing
  - d) Bending
- (iii) Show the correct answer: The practice of smoking the trees like mango, commonly employed in Phillippines in order to produce off-season crop is referred to as:
  - a) Bending
  - b) Pollarding
  - c) Smudging
  - d) Coppicing
- (iv) Show the correct answer: Bending of branches is widely practiced in the Deccan for increasing fruit production of which crop?
  - a) Mango
  - b) Guava
  - c) Grape
  - d) Citrus
- (v) The practice of partial ringing of a branch above a dormant lateral bud in order to increase the yield of fig trees in Pune region of Maharashtra is summarized as:
  - a) Ringing
  - b) Notching
  - c) Pinching
  - d) Scoring
- (vi) Show the correct answer: Fruit buds borne terminally and unfold to produce inflorescence without leaves is commonly seen in which fruit crop?
  - a) Mango
  - b) Guava
  - c) Apple
  - d) Grapes
- (vii) Show the correct answer: Fruit buds borne terminally and unfold to produce leafy shoots that terminate in to flower clusters is commonly seen in which fruit crop?

- a) Mango  
c) Apple
- (viii) Show the correct answer: Fruit bud borne terminally and unfold to produce leafy shoots with flowers or flower clusters in the leaf axils is commonly seen in which fruit crop?
- a) Mango  
c) Apple
- (ix) Show the correct answer: Fruit buds borne laterally unfolding to produce flower parts only without leaves is commonly seen in which fruit crop?
- a) Mango  
c) Apple
- (x) Show the correct answer: Fruit buds borne laterally unfolding to produce leafy shoots terminating in flower clusters is commonly seen in which fruit crop?
- a) Mango  
c) Apple
- (xi) Show the correct answer: Fruit buds borne laterally unfolding to produce leafy shoots with flower clusters in the leaf axils is commonly occurred in which fruit crop?
- a) Fig  
c) Walnut
- (xii) Show the correct answer: Fruit buds borne both terminally and laterally but unfolding to produce inflorescence terminally is commonly occur in which fruit crop?
- a) Fig  
c) Walnut
- (xiii) Show the correct answer: Fruit buds always borne adventitiously in old trunk or, shoots is commonly occur in which fruit crop?
- a) Fig  
c) Jack Fruit
- (xiv) The system of training in which the main stem is allowed to grow only upto a certain height and the leader stem is pruned to encourage scaffold branches production, is summarized as:
- a) Modified Leader System of Training  
c) Open Centre System of Training
- b) Guava  
d) Grapes
- b) Guava  
d) Papaya
- b) Guava  
d) Grapes
- b) Guava  
d) Grapes
- b) Guava  
d) Grapes
- b) Mango  
d) Grapes
- b) Central Leader System of Training  
d) None of these
- (xv) The system of training in which a fruit tree is trained to form a trunk which extends from the surface of the soil to the top of the tree, is summarized as:
- a) Modified Leader System of Training  
c) Open Centre System of Training
- b) Central Leader System of Training  
d) None of these
- (xvi) Show the correct answer: Bower system of training is generally followed for the cultivation of which group of vegetables?
- a) Solanaceous vegetables  
c) Bulbous vegetables
- b) Cruciferous vegetables  
d) Cucurbitaceous vegetables
- (xvii) Show the correct answer: Open Centre System of Training is also known as:
- a) Vase-shaped System of Training  
c) Espalier System of Training
- b) Head System of Training  
d) Telephone System of Training
- (xviii) The practice of reducing the canopy cover in the shade trees in order to permit more light, is summarized as:
- a) Lopping  
c) Coppicing
- b) Pollarding  
d) Bending
- (xix) The practice of removing the growing point in shade trees in order to encourage side branches, is summarized as:
- a) Lopping  
c) Coppicing
- b) Pollarding  
d) Bending
- (xx) Show the correct answer: The most common method of training system for indeterminate types of tomato:



- a) Multiple stem training
- c) Central Leader System

- b) Single stem training
- d) Open Center System

**Group-B**

(Short Answer Type Questions)

2.5 x  
10=25

2. Explain the term- Hi-tech. Horticulture. (2.5)
3. Explain the term-Soil Solarization. (2.5)
4. Explain the term- Integrated Nutrient Management (INM). (2.5)
5. Explain the term- Micropropagation. (2.5)
6. Explain the term- Integrated Pest Management (IPM). (2.5)
7. Explain the term- canopy management. (2.5)
8. Express your opinion regarding the importance of Fumigation of growing media in Hi-tech. Nursery. (2.5)
9. Express your opinion regarding the importance of Horticulture Food Processing. (2.5)
10. Discuss the role of CPCT. (2.5)
11. Classify the various classes of Plant Tissue Culture on the basis of plant part used as explant. (2.5)

**OR**

Classify the different methods of sterilization of media in Plant Tissue Culture. (2.5)

**Group-C**

(Long Answer Type Questions)

5 x 1=5

12. "Modern farming systems through Hi-tech. horticulture holds significant importance and offers vast opportunities for technological innovation and efficiency"- Justify the comment. (5)

**OR**

"Nursery raising of horticultural crops plays a crucial role in achieving successful crop production by providing a vital foundation for plant growth and development"- Justify the statement. (5)

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