





## **BRAINWARE UNIVERSITY**

Term End Examination 2023
Programme – B.Sc.(Ag)-Hons-2021
Course Name – Production Technology for Fruit and Plantation Crops
Course Code - CC-BAG474(T)
( Semester IV )

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Ful	ΙN	νla	ri	S	:	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 x 20=20

- 1. Choose the correct alternative from the following:
- (i) When guava tree flowers during March-April or spring season, this flowering period is summarized as
  - a) Ambe Bahar

b) Hasth Bahar

c) Mrig Bahar

- d) All of these
- (ii) Choose the exact planting distance of coconut in square system of planting
  - a) 6 m x 6 m

b) 7.5m x 7.5m

c) 10 m x 10 m

- d) 5 mx 5 m
- (iii) The type of bearing habit in which flowers and fruits appear directly from the main stem or branch is known as Caulifluorous Bearing. Identify the fruit crop, in which this type of bearing habit is noticed
  - a) Litchi

b) Jackfruit

c) Mango

- d) Almond
- (iv) Identify the Vector of Tristeza Virus (Quick Decline) in Citrus through which the disease is transmitted
  - a) Bud Wood

b) White Fly

c) Seed

- d) Aphid
- (v) Identify the Short Day Plant (SDP) based on photoperiodic requirement:
  - a) Banana

b) Pineapple

c) Pear

- d) Coconut
- (vi) In coconut, boat type inflorescence is present in which flowers remain covered inside one or more large brightly coloured bracts. This type of inflorescence is botanically summarized as:
  - a) Spadix

b) Catkin

c) Corymb

d) Hypanthodium

May Alisa	70123							
LANSIN HURLING BENC	(vii) Plants which have the ability to grow in ext	remely scar condition of water, summarized						
Meer Meer	as:							
Cilida 3 Nest Bank	a) Heliophytes     c) Lithophytes (viii) The Wind-breaks are generally planted in covelocity of the wind by coverting the windvexact direction of a orchard where the windvexact direction of a orchard where	vard side into leeward side. Choose the						
	<ul> <li>a) North-Western Side of the orchard</li> <li>c) North-Eastern Side of the orchard</li> <li>(ix) Identify the seedless variety of mango</li> </ul>	b) South-Western Side of the orchard d) South-Eastern Side of the orchard						
7	a) Sindhu     c) Mulgoa  (x) Identify the mango variety which is suitable	b) Ratna d) Amrapali e for HDP planting						
	a) Sindhu     c) Mulgoa  (xi) Choose the most common and the easiest	b) Ratna d) Amrapali method of propagation in litchi						
	a) Ground Layering     c) Serpentine Layering (xii) Choose the training method which is follow	b) Air Layering d) All of these ved in High Density Planting (HDP)						
	<ul> <li>a) Open Center</li> <li>c) Modified Center</li> <li>(xiii) Choose the chemical, which is used for early September to October to get an early and position without affecting fruit size and quality in m</li> </ul>	profuse flowering and more annual yield						
	a) Paclobutrazol c) GA3 (xiv) Explain the cause of Spongy tissue (A impor	b) IAA d) Zeaxanthin						
	a) Imbalance in calcium concentration     c) Heat in mature fruit at pre-and post- harvest stages  (xv) Identify the Indian city where National Research	b) High level of soil nitrogen d) None of these earch Centre (NRC) for Citrus is located						
	a) Nagpur c) Kolkata	b) Shilong d) Mumbai						
	(xvi) Choose the malformation free variety of mango							
	<ul><li>a) Bahaduran</li><li>c) Alphanso</li><li>(xvii) Any abnormalities in plants which are associated</li></ul>	b) Neelam d) Ratna ciated to non-pathogenic factors can be						
	summarized as	clated to Horr-patriogenic factors can be						
	a) Disease     c) Infection (xviii) Illustrate the control measure (s) to overcontrol measure	<ul> <li>b) Physiological disorder</li> <li>d) All of these</li> <li>me the Spongy Tissue problem in mango</li> </ul>						
	a) Sod Culture c) Harvesting the fruits at 3/4th maturity (xix) Choose the planting material, which is used Palm?	b) Mulching d) All of these						
	<ul><li>a) off-shoots</li><li>c) Corm</li><li>(xx) Identify the fruit crop in which Ratooning is</li></ul>	b) Rhizome d) Bulb s practised						
	a) Mango c) Grape	b) Apple d) Banana						

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### Group-B

# (Short Answer Type Questions)

2.5 x 10=25

2.	Illustrate the floral biology and pollination of mango.	(2.5)
	Illustrate the economic importance of Plantation Crops in India.	(2.5)
4.	Identify 5 important varieties of papaya with their specific characteristics.	(2.5)
5.	Explain the process of air layering in Litchi.	(2.5)
6.	Explain the process of papain extraction from papaya.	(2.5)
7.	Explain the process of plucking in tea.	(2.5)
8.	Discuss about the various features of Arabica Coffee and Robusta Coffee.	(2.5)
9.	Discuss the maturity indices of papaya.	(2.5)
10.	. Discuss the differences between plantation crops vs. fruit crops.	(2.5)
11.	. Illustrate the climatic requirements for successful grape cultivation.	(2.5)
	OR	
	Illustrate the Importance and uses of coconut.	(2.5)

## Group-C

(Long Answer Type Questions)

5 x 1=5

12. Discuss about the effectiveness of the Plant growth regulators which have been extensively (5) used in fruit production at various growth and development stages of plants.

### OR

Discuss about the effective control measures to overcome the problem of Black tip and spongy tissue of mango. (5)