

Enrollment No.....



**Faculty of Agriculture**  
**End Sem (Odd) Examination Dec-2019**  
**AG3CO01 Fundamentals of Horticulture**  
 Programme: B.Sc. (Ag.)      Branch/Specialisation: Agriculture

**Duration: 3 Hrs.****Maximum Marks: 50**

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d.

- Q.1 i. Who is the father of Horticulture? **1**  
 (a) Verges Kurien (b) M.H. Marigowda  
 (c) N.E.Borlaug (d) M.S.Swaminathan
- ii. Derive IIHR? **1**  
 (a) Indian Intelligence Head Research  
 (b) Indian Institute of Hydro Research  
 (c) Indian Institute of Horticulture Report  
 (d) Indian Institute of Horticulture Research
- iii. Auxin plays a critical role in formation of \_\_\_\_\_ on cutting? **1**  
 (a) Adventurous roots (b) Tap roots  
 (c) Simple leaves (d) Compound leaves
- iv. Which of the following is a temperate fruit? **1**  
 (a) Mango (b) Banana (c) Apple (d) None of these
- v. Most commonly used material in Potato propagation **1**  
 (a) Tuber (b) Bulb (c) Rhizome (d) Corm
- vi. High density planting was first established in which fruit tree? **1**  
 (a) Mango (b) Guava (c) Apple (d) Banana
- vii. Which of the following is an often-cross pollinated crop? **1**  
 (a) Okra (b) Carrot (c) Tomato (d) Capsicum
- viii. Pollination through Insects is known as? **1**  
 (a) Anemophily (b) Entomophily  
 (c) Gravity (d) None of these
- ix. If we mix Fertilizers + water & applied to Crop is known as? **1**  
 (a) Medication (b) Fertigation  
 (c) Irrigation (d) None of these

P.T.O.

- x. In line drip emitter is a division of \_\_\_\_\_ system? **1**  
 (a) Sprinkler system (b) Sip system  
 (c) Drip System (d) All of these
- Q.2 i. What are Climacteric fruits? **1**  
 ii. Define horticulture and its branches? **2**  
 iii. Write the scope and importance of horticulture crops production in India? **5**
- OR iv. Write about the classification of horticulture crops based on: **5**  
 (a) Climate (b) Life span (c) photoperiodic requirement.
- Q.3 i. What are macropores? **1**  
 ii. Write about climatic conditions in India? **2**  
 iii. Write about the Grafting and Budding methods in Asexual propagation. **5**
- OR iv. What do you know about seed Dormancy? Write down its break down methods? **5**
- Q.4 i. Define juvenility? **1**  
 ii. Write about unfruit fullness? **2**  
 iii. Write about the principles for an orchard establishment? **5**
- OR iv. Write about different planting systems of fruit crops? **5**
- Q.5 i. Define pollinizers. **1**  
 ii. Write about different types of pollinations with an example? **3**  
 iii. Write the uses of following: **4**  
 Auxins, Cytokinins, Giberelins, Abscicic acid
- OR iv. What are medicinal and aromatic plants write their uses? **4**
- Q.6 i. Define sprinklers. **1**  
 ii. Write about the advantages of Micro- irrigation systems. **3**  
 iii. Write the difference between Organic and Inorganic fertilizers? **4**
- OR iv. Write about different types of irrigation methods followed in horticulture crops? **4**

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**Marking Scheme**  
**AG3CO01 Fundamentals of Horticulture**

|     |       |  |  |          |
|-----|-------|--|--|----------|
| Q.1 | i.    | Who is the father of Horticulture?                               |  | <b>1</b> |
|     |       | (b) M.H. Marigowda   |  |          |
|     | ii.   | Derive IIHR?   |  | <b>1</b> |
|     |       | (d) Indian Institute of Horticulture Research                    |  |          |
|     | iii.  | Auxin plays a critical role in formation of _____ on cutting?    |  | <b>1</b> |
|     |       | (a) Adventurous roots  |  |          |
|     | iv.   | Which of the following is a temperate fruit?                     |  | <b>1</b> |
|     |       | (c) Apple  |  |          |
|     | v.    | Most commonly used material in Potato propagation                |  | <b>1</b> |
|     |       | (a) Tuber  |  |          |
|     | vi.   | High density planting was first established in which fruit tree? |  | <b>1</b> |
|     |       | (c) Apple  |  |          |
|     | vii.  | Which of the following is an often-cross pollinated crop?        |  | <b>1</b> |
|     |       | (a) Okra   |  |          |
|     | viii. | Pollination through Insects is known as?                         |  | <b>1</b> |
|     |       | (b) Entomophily  |  |          |
|     | ix.   | If we mix Fertilizers + water & applied to Crop is known as?     |  | <b>1</b> |
|     |       | (b) Fertigation  |  |          |
|     | x.    | In line drip emitter is a division of _____ system?              |  | <b>1</b> |
|     |       | (c) Drip System  |  |          |

|     |      |  |         |          |
|-----|------|--|---------|----------|
| Q.2 | i.   | Climacteric fruits (As per answer)                             | 1 mark  | <b>1</b> |
|     | ii.  | Define horticulture  | 1 mark  | <b>2</b> |
|     |      | Its branches   | 1 mark  |          |
|     | iii. | Importance of horticulture                                     | 3 marks | <b>5</b> |
|     |      | Scope of horticulture  | 2 marks |          |
| OR  | iv.  | Write about the classification of horticulture crops based on: |         | <b>5</b> |
|     |      | Climate and photoperiodic requirement.                         | 4 marks |          |
|     |      | Life span  | 1 mark  |          |

|     |      |                                   |           |          |
|-----|------|-----------------------------------|-----------|----------|
| Q.3 | i.   | Define macropores (As per answer) | 1 mark    | <b>1</b> |
|     | ii.  | Climatic conditions in India      | 2 marks   | <b>2</b> |
|     | iii. | Grafting                          | 2.5 marks | <b>5</b> |
|     |      | Budding                           | 2.5 marks |          |
| OR  | iv.  | Seed Dormancy                     | 2 marks   | <b>5</b> |
|     |      | Seed breaking methods             | 3 marks   |          |

|     |    |                                   |        |          |
|-----|----|-----------------------------------|--------|----------|
| Q.4 | i. | Define Juvenility (As per answer) | 1 mark | <b>1</b> |
|-----|----|-----------------------------------|--------|----------|

|    |      |                                      |            |          |
|----|------|--------------------------------------|------------|----------|
|    | ii.  | Unfruit fullness                     | 2 marks    | <b>2</b> |
|    | iii. | Different Points(Total five points)  | (1 mark*5) | <b>5</b> |
| OR | iv.  | Planting method (Total Five methods) | (1 mark*5) | <b>5</b> |

|     |      |   |            |          |
|-----|------|---|------------|----------|
| Q.5 | i.   | Define pollinizers. (As per answer)             | 1 mark     | <b>1</b> |
|     | ii.  | Different types of pollinations with an example | (1 mark*3) | <b>3</b> |
|     | iii. | Write the uses of following:                    |            | <b>4</b> |

Auxins 1 mark

Cytokinins 1 mark

Giberelins 1 mark

Absicic acid 1 mark

|    |     |                                  |         |          |
|----|-----|----------------------------------|---------|----------|
| OR | iv. | Medicinal                        | 2 marks | <b>4</b> |
|    |     | Aromatic plants write their uses | 2 marks |          |

|     |      |   |            |          |
|-----|------|---|------------|----------|
| Q.6 | i.   | Define sprinklers.                                  | 1 mark     | <b>1</b> |
|     | ii.  | Advantages of Micro- irrigation systems.            | (1 mark*3) | <b>3</b> |
|     | iii. | Organic and Inorganic fertilizers(At least 4 point) | (1 mark*4) | <b>4</b> |

|    |     |  |            |          |
|----|-----|--|------------|----------|
| OR | iv. | Different types of irrigation methods (At least 4 methods) | (1 mark*4) | <b>4</b> |
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