

QP CODE: 24900140



Reg No:.....

Name:.....

**MAHATMA GANDHI UNIVERSITY, KOTTAYAM**  
**FIRST SEMESTER MGU-UGP (HONOURS) REGULAR**  
**EXAMINATION NOVEMBER 2024**

**First Semester**

**Discipline Specific Core Course - MG1DSCHTC100 - BASIC HORTICULTURE**

(2024 ADMISSION ONWARDS)

Duration: 1.5 Hours

Maximum Marks: 50

**Remember (K), Understand (U), Apply (A), Analyse (An), Evaluate (E), Create (C), Interest (I),  
Appreciation (Ap), and Skill (S)**

*Students should attempt atleast one question from each course outcome to enhance their overall  
outcome attainability.*

[Learning Domain][CO No(s)]

**Part A**

**Short Answers**

Answer any ten questions. Each question carries 1 mark.

- |    |   |      |     |
|----|---|------|-----|
| 1  | What are the primary objectives of horticulture?  | [U]  | [1] |
| 2  | How does horticulture aim to improve water use efficiency and soil health in plant cultivation?         | [An] | [1] |
| 3  | What is vertical garden?  | [K]  | [2] |
| 4  | Differentiate living and non-living components of garden.   | [An] | [2] |
| 5  | What does the term water-use-efficiency refer to in irrigation?   | [An] | [3] |
| 6  | What are the essential nutrients for plant growth?  | [K]  | [3] |
| 7  | How does the soil's water-holding capacity influence irrigation practices?                              | [U]  | [3] |
| 8  | Write a short note on Temperate fruit zone.   | [K]  | [2] |
| 9  | How can horticultural therapy be used in healthcare settings to improve physical and mental well-being. | [S]  | [1] |
| 10 | What are Soil Moisture Sensors?   | [K]  | [3] |
| 11 | What is air layering?   | [U]  | [5] |
| 12 | Write about the nutrient source of an aquaponics system.  | [U]  | [5] |

(10 × 1 = 10)

**Part B**

**Short Essay Type Questions**

Answer any six questions. Each question carries 5 marks.

- |    |   |      |     |
|----|---|------|-----|
| 13 | Describe the process of creating a garden layout plan.                                      | [U]  | [2] |
| 14 | Evaluate the effectiveness of polyhouses in extending the growing season for various crops. | [E]  | [2] |
| 15 | How evapotranspiration does influence the need for irrigation?                              | [A]  | [3] |
| 16 | How does soil nutrient management helps to attain sustainable agrarian culture?             | [E]  | [3] |
| 17 | How post-harvest technology preserves the quality and shelf life of horticultural crops.    | [S]  | [1] |
| 18 | What are the challenges faced by the horticulture industry in developing countries?         | [E]  | [1] |
| 19 | How do you prepare seeds for planting?  | [A]  | [5] |
| 20 | Assess the environmental benefits of aeroponics over traditional farming.                   | [An] | [5] |

(6 × 5 = 30)

### **Part C**

#### **Essay Type Questions**

Answer any one question. Question carries 10 marks.

- |    |  |     |     |
|----|--|-----|-----|
| 21 | Create a plan for implementing AI-driven precision agriculture in a small-scale farm.                        | [C] | [5] |
| 22 | Discuss in detail the structure, functions, and applications of greenhouses in agriculture and horticulture. | [U] | [2] |

(1 × 10 = 10)

**END OF THE QUESTION PAPER**

\*\*\*