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| **Model Question Paper** |
| **M.Sc., Horticulture and Landscape Management : Semester – I** |
| **PAPER CODE: 101:** **FUNDAMENTS OF HORTICULTURE****(Effective from the Admitted Batch of 2017-2018)** |
| **Time: Three Hours** | **Maximum Marks: 80** |
| **Answer any Five of the Following****All Questions carry equal Marks** |
| **1.** | Write about Agroecological regions of India and mention major horticulture crops grown in these regions |
| **2.** | Write an essay on different types of classifications of Soils |
| **3.** | Mention different types of irrigation methods. Explain how microirrigation is advantageous over other methods by taking one horticulture as an example |
| **4.** | Write critical notes on **Four** of the following |
|  | **a)** | Site selection for establishing an Orchard |
|  | **b)** | Leaf analysis |
|  | **c)** | Importance of Horticulture |
|  | **d)** | Inorganic fertilizers |
|  | **e)** | Divisions of Horticulture |
| **5.** | Discuss about the principles and methods of Pest and Disease management |
|  **6.** | Write about the factors effecting flower bud initiation and formation |
|  **7.** | Write an essay on deficiency symptoms of macro and micro nutrients and remedial measures with diagrammatic representation |
|  **8.** | Answer any **Four** of the following  |
|  | **a)** | Assessment of irrigation requirement |
|  | **b)** | Soil water |
|  | **c)** | Systems of planting |
|  | **d)** | Homologons theory |
|  | **e)** | Methods of application fertilizers |

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| **Model Question Paper** |
| **M.Sc., Horticulture and Landscape Management : Semester – I** |
| **PAPER CODE: 102:** **PLANT PROPAGATION & NURSERY MANAGEMENT****(Effective from the Admitted Batch of 2017-2018)** |
| **Time: Three Hours** | **Maximum Marks: 80** |
| **Answer any Five of the Following****All Questions carry equal Marks** |
| **1.** | Describe the process of seed germination and the factors effecting the seed germination |
| **2.** | Discuss the principles of pure seed production |
| **3.** | Write about the types of Cuttings and factors effecting the regeneration of Cuttings |
| **4.** | Write critical notes on **Four** of the following |
|  | **a)** | Pregermination seed treatment |
|  | **b)** | Grafting incompatibility |
|  | **c)** | Regeneration of layers |
|  | **d)** | Importance of sexual propagation |
|  | **e)** | Media constituents and Media preparation |
| **5.** | Write about the types of Cuttings and factors effecting the regeneration of Cuttings |
|  **6.** | Write an account on the importance of Grafting and and describe the steps involved in graft union |
|  **7.** | Describe the commercial methods of propagation in Rose, Mango, Grapevine and Pineapple |
|  **8.** | Answer any **Four** of the following  |
|  | **a)** | T - budding in Rose |
|  | **b)** | Types of human - aided layering |
|  | **c)** | Differentiate Layerage from Cutting |
|  | **d)** | Differentiate Budding from Grafting |
|  | **e)** | Selection of Scion material |

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| **Model Question Paper** |
| **M.Sc., Horticulture and Landscape Management : Semester – I** |
| **PAPER CODE: 103:** **GREEN HOUSE MANAGEMENT****(Effective from the Admitted Batch of 2017-2018)** |
| **Time: Three Hours** | **Maximum Marks: 80** |
| **Answer any Five of the Following****All Questions carry equal Marks** |
| **1.** | Write in detail about localized heating system in Green House |
| **2.** | Describe the production technology of Carnation in Green House |
| **3.** | Write in detail about the Pest and disease management in Green House |
| **4.** | Write critical notes on **Four** of the following |
|  | **a)** | Horizontal air flow system |
|  | **b)** | Horticultural operations in Chrysanthemum |
|  | **c)** | Off season vegetable production |
|  | **d)** | Points to be considered before establishing a Green house |
|  | **e)** | Deficiency symptoms and remedial measures in Green House |
| **5.** | Give a detailed account on types of Green House covering materials |
|  **6.** | Discuss about Green House Vegetable production. |
|  **7.** | Discuss the importance of Green House and scope and production of horticultural crops in Green House |
|  **8.** | Answer any **Four** of the following  |
|  | **a)** | Post harvest handling of Green House horticulture produce |
|  | **b)** | Prospects in India for commercial Poly house vegetable production |
|  | **c)** | Fog cooling ion Green House |
|  | **d)** | Fertigation in Bell Pepper |
|  | **e)** | Ventilation and air circulation in Green House |

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| **Model Question Paper** |
| **M.Sc., Horticulture and Landscape Management : Semester – I** |
| **PAPER CODE: 104:** **POMOLOGY****(Effective from the Admitted Batch of 2017-2018)** |
| **Time: Three Hours** | **Maximum Marks: 80** |
| **Answer any Five of the Following****All Questions carry equal Marks** |
| **1.** | Write an account on the origin, distribution, soils and climatic conditions required for the cultivation of Mango |
| **2.** | Describe the flowering, fruit growth and problems in fruit set in Guava and add a note on production technology |
| **3.** | Give an account on varieties, sex expression, and sex determination and production technology of Papaya |
| **4.** | Write critical notes on **Four** of the following |
|  | **a)** | Explain varieties and planting methods in Pineapple |
|  | **b)** | Important cultural practices in Pomegranate |
|  | **c)** | Selection of rootstock in Sapota |
|  | **d)** | Pruning and training in Grapes |
|  | **e)** | Intercultural operations in Banana |
| **5.** | Describe the botany and cultural practices of Custard Apple |
|  **6.** | Write about cultural practices, pest and disease management in Banana |
|  **7.** | Write about the varieties, cultural practices and physiological disorders of Pomegranate |
|  **8.** | Answer any **Four** of the following  |
|  | **a)** | Planting methods in Pine apple |
|  | **b)** | Important cultural practices in Date Palm |
|  | **c)** | Planting methods in Tamarind |
|  | **d)** | Pest and disease management in Wood Apple |
|  | **e)** | Important cultural practices in Almond |

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| **Model Question Paper** |
| **M.Sc., Horticulture and Landscape Management : Semester – II** |
| **PAPER CODE: 201:** **OLERICULTURE AND VEGETABLE SEED PRODUCTION (Effective from the Admitted Batch of 2017-2018)** |
| **Time: Three Hours** | **Maximum Marks: 80** |
| **Answer any Five of the Following****All Questions carry equal Marks** |
| **1.** | Write in detail about cultural practices of Tomato |
| **2.** | Give a detailed account on Pest and Disease management in Bell Pepper |
| **3.** | Write in detail about package of practices of Cauliflower |
| **4.** | Write critical notes on **Four** of the following |
|  | **a)** | Planting of Yams |
|  | **b)** | Manures and fertilizers in Carrot |
|  | **c)** | Sex expression and sex ratio in Cucurbits |
|  | **d)** | Tuber formation in Potato |
|  | **e)** | Raising of seedlings in Solanaceous Crops |
| **5.** | Explain in detail about production technology of Onion |
|  **6.** | What are the important cultural practices to get higher yields in Potato |
|  **7.** | Suggest important varieties and hybrids and mention cultural hints for cultivation of Okra |
|  **8.** | Answer any **Four** of the following  |
|  | **a)** | Diseases in Potato |
|  | **b)** | Intercultural operations in Sweet Potato |
|  | **c)** | Thinning, gap filling and earthing up in Beetroot |
|  | **d)** | Cultural hints in Curry leaf |
|  | **e)** | Propagation and planting in Coccinea |

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| **Model Question Paper** |
| **M.Sc., Horticulture and Landscape Management : Semester – II** |
| **PAPER CODE: 202:** **COMMERCIAL FLORICULTURE (Effective from the Admitted Batch of 2017-2018)** |
| **Time: Three Hours** | **Maximum Marks: 80** |
| **Answer any Five of the Following****All Questions carry equal Marks** |
| **1.** | Discuss the production technology, pest and disease management in Rose |
| **2.** | Write an account on production technology,pest and disease management in Chrysanthemum |
| **3.** | Give an account on the production technology, pest and disease management in Jasmine |
| **4.** | Write critical notes on **Four** of the following |
|  | **a)** | Pest and disease management in Gladiolus |
|  | **b)** | Role of environmental factors in the growth and flowering of Anthuriums |
|  | **c)** | Plant morphology in orchids |
|  | **d)** | Defoliation in Jasmine |
|  | **e)** | Manuring and fertilizers in China aster |
| **5.** | Write about the production technology in Gerbera and its pest and disease management |
|  **6.** | Describe the production technology, pest and disease management in Carnation |
|  **7.** | Discuss the production technology in orchids |
|  **8.** | Answer any **Four** of the following  |
|  | **a)** | Manuring and fertilizers in Tuberose |
|  | **b)** | Pest and disease management in Crossandra |
|  | **c)** | Cultural hints in Dhalia |
|  | **d)** | Manuring and fertilizers in Anthurium |
|  | **e)** | Important horticultural practices in Lilliums |

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| **Model Question Paper** |
| **M.Sc., Horticulture and Landscape Management : Semester – II** |
| **PAPER CODE: 203:** **PLANTATION CROPS, SPICES AND CONDIMENTS (Effective from the Admitted Batch of 2017-2018)** |
| **Time: Three Hours** | **Maximum Marks: 80** |
| **Answer any Five of the Following****All Questions carry equal Marks** |
| **1.** | Write an essay on the cultivation practices of Coconut |
| **2.** | Give an account on the origin and distribution, area and production technology of Oil Palms |
| **3.** | Write a detailed account on propagation, manuring, pests and diseases of Cashew nut |
| **4.** | Write critical notes on **Four** of the following |
|  | **a)** | Training and pruning of Cocoa |
|  | **b)** | Tapping in Rubber |
|  | **c)** | Soil and Climatic conditions of Tea |
|  | **d)** | Coffee varieties |
|  | **e)** | Advantages of inter cropping and mixed cropping |
| **5.** | Discuss about the origin, cultivation practices and pests and diseases of Ginger |
|  **6.** | Write an essay on the origin, uses, Botany and cultivation of Turmeric |
|  **7.** | Give an account on the composition, uses, origin and distribution, propagation, pests and diseases of Cardamom |
|  **8.** | Answer any **Four** of the following  |
|  | **a)** | Uses and cultivation of Pepper |
|  | **b)** | Curing of Cardamoms |
|  | **c)** | Cultivation of Cumin |
|  | **d)** | Cultivars of Coriander |
|  | **e)** | Curing and grading of Nutmeg |

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| **Model Question Paper** |
| **M.Sc., Horticulture and Landscape Management : Semester – II** |
| **PAPER CODE: 204:** **MEDICINAL AND AROMATIC CROPS (Effective from the Admitted Batch of 2017-2018)** |
| **Time: Three Hours** | **Maximum Marks: 80** |
| **Answer any Five of the Following****All Questions carry equal Marks** |
| **1.** | Write an in detail medicinal account Aswagandha  |
| **2.** | Give an account on the origin and distribution, area and production technology of Cinchona |
| **3.** | Describe the medicinal importance of wild species of Long pepper |
| **4.** | Write critical notes on **Four** of the following |
|  | **a)** | Aloe |
|  | **b)** | Withanolides |
|  | **c)** | Varieties of Cinchona |
|  | **d)** | Fertilizers for Long pepper |
|  | **e)** | Aloe chemical composition |
| **5.** | Write an essay on the uses, origin, distribution and cultural hints of Belladonna |
|  **6.** | Give a concise account on uses, origin, propagation and processing of Rauvolfia |
|  **7.** | Write an account on the profile, varieties, cultural practices of Lemon grass |
|  **8.** | Answer any **Four** of the following  |
|  | **a)** | Mint |
|  | **b)** | Periwinkle |
|  | **c)** | Khus |
|  | **d)** | Palma Rose |
|  | **e)** | Oscimum |

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| **Model Question Paper** |
| **M.Sc., Horticulture and Landscape Management : Semester – III** |
| **PAPER CODE: 301:** **PRINCIPLES OF LANDSCAPE GARDENING (Effective from the Admitted Batch of 2017-2018)** |
| **Time: Three Hours** | **Maximum Marks: 80** |
| **Answer any Five of the Following****All Questions carry equal Marks** |
| **1.** | Discuss English garden style with suitable examples. How did William Kents’ principles of garden design help in developing the style? |
| **2.** | Landscape analysis is a prerequisite for any major planning project. Justify the statement |
| **3.** | Discuss the relevance of landscape design in industrial design. Suggest plant material for a cement industry to combat pollution |
| **4.** | Write critical notes on **Four** of the following |
|  | **a)** | Air pollution |
|  | **b)** | Topography |
|  | **c)** | Sculpline in landscape |
|  | **d)** | Landscape of cemeteries & crematoriums |
|  | **e)** | Ecosystem |
| **5.** | What are the physical attributes of plants that help in landscape design of parks? Suggest suitable plants for a tot lot in a neighborhood park |
|  **6.** | Discuss how various elements of landscape design help in creating tramition spaces to integrate built environment to outdoors |
|  **7.** | What is environmental impact Assessment? How does it help in development major building activities in Hilly areas? |
|  **8.** | Answer any **Four** of the following  |
|  | **a)** | Roof garden |
|  | **b)** | Highway landscaping |
|  | **c)** | Water pollution |
|  | **d)** | Indoor plants |
|  | **e)** | Japanese garden design |

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| **Model Question Paper** |
| **M.Sc., Horticulture and Landscape Management : Semester – III** |
| **PAPER CODE: 302:** **ORNAMENTAL GARDENING (Effective from the Admitted Batch of 2017-2018)** |
| **Time: Three Hours** | **Maximum Marks: 80** |
| **Answer any Five of the Following****All Questions carry equal Marks** |
| **1.** | Write an essay on basic principles of garden designing |
| **2.** | Write about effect of light, temperature and water on indoor plants and discuss about the management of common problems of indoor plants |
| **3.** | What is a water garden? Write in detail about construction, testing, method of planting and care of water garden |
| **4.** | Write critical notes on **Four** of the following |
|  | **a)** | Shrubbery |
|  | **b)** | Hedges and edges |
|  | **c)** | Turf management |
|  | **d)** | Topiary and pergolas |
|  | **e)** | Garden paths |
| **5.** | Write a concise account on landscape management |
|  **6.** | Write in detail about preparation, method of planting and maintenance of lawn and mention types of grasses selected for planting a lawn |
|  **7.** | Write an essay on ornamental climbers with examples |
|  **8.** | Answer any **Four** of the following  |
|  | **a)** | Garden operations after planting |
|  | **b)** | Pruning |
|  | **c)** | Rock garden |
|  | **d)** | Method of pest and disease management |
|  | **e)** | Potted plants |

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| **Model Question Paper** |
| **M.Sc., Horticulture and Landscape Management : Semester – III** |
| **PAPER CODE: 303:** **LANDSCAPE MANAGEMENT AND LAWN MANAGEMENT (Effective from the Admitted Batch of 2017-2018)** |
| **Time: Three Hours** | **Maximum Marks: 80** |
| **Answer any Five of the Following****All Questions carry equal Marks** |
| **1.** | Write an account on Landscaping Educational Institutes |
| **2.** | Describe the components of Landscape garden |
| **3.** | Enumarate the importance of Japanese Lanterns |
| **4.** | Write critical notes on **Four** of the following |
|  | **a)** | Air pollution |
|  | **b)** | Road side plantations |
|  | **c)** | Retaining wall |
|  | **d)** | Bird baths |
|  | **e)** | Plant Standards  |
| **5.** |  Discuss the features of Mughal Garden |
|  **6.** | Write a detailed account on the types of Japanese Garden |
|  **7.** | Explain different types of Grasses for lawn management  |
|  **8.** | Answer any **Four** of the following  |
|  | **a)** | Terrace |
|  | **b)** | Stone Lanterns |
|  | **c)** | Bermuda grass |
|  | **d)** | Weeding |
|  | **e)** | Turf plastering |

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| **Model Question Paper** |
| **M.Sc., Horticulture and Landscape Management : Semester – III** |
| **PAPER CODE: 304:** **PLANT GROWTH REGULATORS IN HORTICULTURE (Effective from the Admitted Batch of 2017-2018)** |
| **Time: Three Hours** | **Maximum Marks: 80** |
| **Answer any Five of the Following****All Questions carry equal Marks** |
| **1.** | Write an account on different types of Plant Growth substances and their biosynthesis |
| **2.** | Give a concise account on Physiological effects of Auxins and Gibberellins |
| **3.** | Write a brief account on the mechanism of Auxins and Gibberellins |
| **4.** | Write critical notes on **Four** of the following |
|  | **a)** | Photoperiodism |
|  | **b)** | Phenolic substances |
|  | **c)** | Vernalization |
|  | **d)** | Abscisic acid |
|  | **e)** | Ethylene |
| **5.** | Explain the role of Cytokinins in Seed germination and Fruit developemnt |
|  **6.** | Write in detail note on production of parthenocarpic fruits and its applications  |
|  **7.** | Explain the role of phytohormones in sex expression of vegetable crops |
|  **8.** | Answer any **Four** of the following  |
|  | **a)** | Apical dominance |
|  | **b)** | Gerbera |
|  | **c)** | Growth retardants |
|  | **d)** | Tuber formation |
|  | **e)** | Tuber growth |

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| **Model Question Paper** |
| **M.Sc., Horticulture and Landscape Management : Semester – IV** |
| **PAPER CODE: 401:** **INTEGRATED PEST AND DISEASE MANAGEMENT (Effective from the Admitted Batch of 2017-2018)** |
| **Time: Three Hours** | **Maximum Marks: 80** |
| **Answer any Five of the Following****All Questions carry equal Marks** |
| **1.** | Write an easy on Integrated Pest management for mango  |
| **2.** | Describe the Integrated Pest management for Citrus |
| **3.** | Role of Integrated Pest management in Vegetable crops |
| **4.** | Write critical notes on **Four** of the following |
|  | **a)** | IPM pyramid |
|  | **b)** | Pests |
|  | **c)** | Bacterial pathotypes |
|  | **d)** | Biological treatment of pests |
|  | **e)** | Pesticides |
| **5.** | Write an account on Identification and control measures of Winter vegetable crops diseases  |
|  **6.** | Discuss the diseases of some medicinal plants you have studied |
|  **7.** | Write an account on Integrated Pest Management applications in horticultural crops |
|  **8.** | Answer any **Four** of the following  |
|  | **a)** | Citronella |
|  | **b)** | Cashew |
|  | **c)** | Baculovirus |
|  | **d)** | Pesticides |
|  | **e)** | Diseases of Coconut |

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| **Model Question Paper** |
| **M.Sc., Horticulture and Landscape Management : Semester – IV** |
| **PAPER CODE: 402:** **POST HARVEST TECHNOLOGY OF HORTICULTURAL CROPS (Effective from the Admitted Batch of 2017-2018)** |
| **Time: Three Hours** | **Maximum Marks: 80** |
| **Answer any Five of the Following****All Questions carry equal Marks** |
| **1.** | Write about different packaging materials used in storing and transport of horticultural crops |
| **2.** | Describe different techniques used to reduce post harvest losses in horticultural crops |
| **3.** | Write an essay on low temperature storage, controlled atmospheric storage & hypobaric storage |
| **4.** | Write critical notes on **Four** of the following |
|  | **a)** | Application of hormones on ripening of fruits |
|  | **b)** | Ripening process in fruits |
|  | **c)** | Use of fungicides during storage & transport |
|  | **d)** | Pre harvest factors affecting storage life of fruits |
|  | **e)** | Phenolic compounds |
| **5.** | Write the chemicals used for hastening and delayed ripening |
|  **6.** | Explain the factors affecting ripening of fruits |
|  **7.** | Write various maturity indices of vegetables and fruits |
|  **8.** | Answer any **Four** of the following  |
|  | **a)** | Export packing technology |
|  | **b)** | Cushioning material used in packing |
|  | **c)** | Specific packing for export of Mango |
|  | **d)** | Specific packing for export of Cut flowers |
|  | **e)** | Gladiolus packing |

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| **Model Question Paper** |
| **M.Sc., Horticulture and Landscape Management : Semester – IV** |
| **PAPER CODE: 403:** **PRINCIPLES OF FRUIT AND VEGETABLES PRESERVATION (Effective from the Admitted Batch of 2017-2018)** |
| **Time: Three Hours** | **Maximum Marks: 80** |
| **Answer any Five of the Following****All Questions carry equal Marks** |
| **1.** | Write in detail about the process of preservation of fruits and vegetables through dehydration, drying and freezing |
| **2.** | Discuss about spoilage of canned products |
| **3.** | Discuss about principles of preservation of fruits and vegetables by heat, low temperature and chemical methods |
| **4.** | Write critical notes on **Four** of the following |
|  | **a)** | Microbiological spoilage of canned products |
|  | **b)** | Colours permitted and prohibited in India |
|  | **c)** | Different kinds of equipments used in processing of fruits and vegetables for preservation |
|  | **d)** | Hydrogen swells |
|  | **e)** | Biochemical changes associated with spoilage of canned products |
| **5.** | Write about the process of canning in preservation of fruits and vegetables |
|  **6.** | What is preservative? Write about the preservatives that are permitted and prohibited in India |
|  **7.** | Write about preparation of jams and jellies |
|  **8.** | Answer any **Four** of the following  |
|  | **a)** | Preparation of chutneys |
|  | **b)** | Preservatives permitted and prohibited in India |
|  | **c)** | Preparation of crystallized and glazed fruits |
|  | **d)** | Preparation of syrups |
|  | **e)** | Preparation of juices |

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| **Model Question Paper** |
| **M.Sc., Horticulture and Landscape Management : Semester – IV** |
| **PAPER CODE: 404:** **RECENT ADVANCES IN HORTICULTURE (Effective from the Admitted Batch of 2017-2018)** |
| **Time: Three Hours** | **Maximum Marks: 80** |
| **Answer any Five of the Following****All Questions carry equal Marks** |
| **1.** | What is organic matter? Write a note on benefits of Soil Organic matter |
| **2.** | What is Bonsai? Describe different kinds of group Plantings in Bonsai |
| **3.** | Write the basic characteristics of earthworms that are used in Vermiculture |
| **4.** | Write critical notes on **Four** of the following |
|  | **a)** | Green Manuring |
|  | **b)** | Sprinkler |
|  | **c)** | Pot Pourri |
|  | **d)** | Honey extraction |
|  | **e)** | Apiculture |
| **5.** | Describe in detail about terrarium culture |
|  **6.** | Describe the equipment used in Apiculture with suitable diagrams. |
|  **7.** | Write an essay on dehydration of flower foliage |
|  **8.** | Answer any **Four** of the following  |
|  | **a)** | Objectives of watershed Management |
|  | **b)** | Training in Bonsai |
|  | **c)** | Principle of flower arrangement |
|  | **d)** | Ikebana |
|  | **e)** | Vermi composting Material |