

Model Question Paper  
**M.Sc. Horticulture and Landscape Management - Semester – I**

**Core Paper 101: Fundamentals of Horticulture**

Time: 3 Hours

Maximum Marks: 85

Answer any Five Questions  
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. Write short notes on any 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
  - f) Formulations of Pesticides
4. Discuss about the principles and methods of Pest and Disease management.
5. Write about the factors effecting flower bud initiation and formation.
6. Write an essay on deficiency symptoms of macro and micro nutrients and remedial measures with diagrammatic representation.
7. Mention different types of irrigation methods. Explain how microirrigation is advantageous over other methods by taking one horticulture as an example.
8. Write short notes on any four of the following:
  - a) Write about the Pest, belonging to the animal kingdom
  - b) Classification of pesticides based on mode of action
  - c) Assessment of irrigation requirement
  - d) Soil water
  - e) Systems of planting
  - f) Methods of application fertilizers

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Model Question Paper  
**M.Sc. Horticulture and Landscape Management - Semester – I**

**Core Paper 102: Plant Propagation**

Time: 3 Hours

Maximum Marks: 85

Answer any Five Questions  
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 short notes on any Four of the following:
  - a) Pregermination seed treatment
  - b) Importance of sexual propagation
  - c) Grafting incompatibility
  - d) Care of cuttings during rooting
  - e) Regeneration of layers
  - f) Media constituents and Media preparation
4. Write about the types of Cuttings and factors effecting the regeneration of Cuttings.
5. Write an account on the importance of Grafting and describe the steps involved in graft union.
6. Describe the commercial methods of propagation in Rose, Mango, Grapevine and Pineapple.
7. Write an account on micropropagation of plants and add a note on its application.
8. Write short notes on any Four of the following:
  - a) Selection of Scion material
  - b) T - budding in Rose
  - c) Types of human - aided layering
  - d) Terminology used in Grafting
  - e) Differentiate Layerage from Cutting
  - f) Differentiate Budding from Grafting

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Model Question Paper  
**M.Sc. Horticulture and Landscape Management - Semester – I**

**Core Paper 103: Commercial Floriculture**

Time: 3 Hours

Maximum Marks: 85

Answer any Five Questions  
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. Write short notes on any Four of the following:
  - a) Pest and disease management in Gladiolus
  - b) Important commercially cultivated species of Marigold and their varieties
  - c) Role of environmental factors in the growth and flowering of Anthuriums
  - d) Plant morphology in orchids
  - e) Manuring and fertilizers in China aster
  - f) Defoliation in Jasmine
4. Give an account on the production technology, pest and disease management in Jasmine.
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. Write short notes on any four of the following:
  - a) Manuring and fertilizers in Tuberose
  - b) Pest and disease management in Crossandra
  - c) Cultural hints in Dahlia
  - 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 – I**

**Core Paper 104: Pomology**

Time: 3 Hours

Maximum Marks: 85

Answer any Five Questions  
All Questions carry equal Marks

1. Write about pest and disease management in Mango .
2. Write in detail about flowering, fruit set and problems of fruit set in Citrus and steps required for regulation of flowering
3. Write short notes on any 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. Irregular bearing in Mango
  - e. Pruning and training in Grapes
  - f. Intercultural operations in Banana
4. Write an essay on fruit growth and development in Grapes and techniques to improve fruit yield and quality.
5. Write about production technology of Guava.
6. Write about important cultural hints in Pears.
7. Explain in detail about cultivation of Apples.
8. Write short notes on any Four of the following:
  - a. Flowers and sex expression in Papaya
  - b. Pest and disease management in Litchi
  - c. Bacterial and Viral diseases in Citrus and their control
  - d. Pruning and training in Peaches
  - e. Pest and disease management in Cherries
  - f. Important cultural practices in Almond

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Model Question Paper  
**M.Sc. Horticulture and Landscape Management - Semester – II**

**Core Paper 201: Olericulture**

Time: 3hours

Max.Marks: 85

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 short notes on any Four of the following:
  - a) Time and method of sowing, seedrates per hectare in Leguminous Vegetables
  - b) Planting of Yams
  - c) Manures and fertilizers in Carrot
  - d) Sex expression and sex ratio in Cucurbits
  - e) Tuber formation in Potato
  - f) Raising of seedlings in Solanaceous Crops
4. Write in detail about package of practices of Cauliflower.
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. Write short notes on 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) Insect pests of Cabbage
  - e) Cultural hints in Curry leaf
  - f) Propagation and planting in Coccinea

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Model Question Paper

**M.Sc. Horticulture and Landscape Management - Semester – II**

**Core Paper 202: Ornamental Horticulture and Nursery Management**

Time: 3hours

Max.Marks: 85

Answer any FIVE of the following  
All Questions Carry equal Marks

1. Give the classification of Cacti and describe culture and care of Cacti.
2. Explain Training and Pruning of Ornamental trees.
3. Write short notes on any Four of the following:
  - a) Soil treatment
  - b) Pricking
  - c) Potting and repotting
  - d) Planting and Transplanting
  - e) Seed treatment and sowing
  - f) Hardening
4. Discuss different types of nursery structures used in Nursery production.
5. Mention different species and give the cultural hints for perennial Aster, Pelargonium, Zinnia, Gaillardia, Gerbera and Impatiens.
6. Explain the objectives and different methods of pruning
7. Give the cultural hints for the bulbous crops.
8. Write short notes on any Four of the following:
  - a) Difference between Cacti and succulents
  - b) Cultural hints for Ferns
  - c) Trellies training system
  - d) Propagation media
  - e) Different types of Nursery production
  - f) Give the cultural hints for Lantana and Nerium

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Model Question Paper  
**M.Sc. Horticulture and Landscape Management - Semester – II**

**Core Paper 203: Plantation Crops, Spices and Condiments**

Time: 3hours

Max.Marks: 85

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 short notes on any 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. Write short notes on 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**

**Core Paper 204: Green House Management**

Time: 3hours

Max.Marks: 85

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 short notes on any Four of the following:
  - a) Horizontal air flow system
  - b) Horticultural operations in Chrysanthemum
  - c) Disease management in Anthurium
  - d) Off season vegetable production
  - e) Points to be considered before establishing a Green house
  - f) Deficiency symptoms and remedial measures in Green House
4. Write in detail about the Pest and disease management 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. Write short notes on 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) Role of growth regulators in growth and development of Green House crops
  - e) Fertigation in Bell Pepper
  - f) Ventilation and air circulation in Green House

Model Question Paper

**M.Sc. Horticulture and Landscape Management - Semester – III**

**Core Paper 301: Ornamental Gardening and Landscape Management**

Time: 3 Hours

Maximum Marks: 85

Answer any Five Questions  
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. Write short notes on any Four of the following:
  - a) Shrubbery
  - b) Hedges and edges
  - c) Turf management
  - d) Topiary and pergolas
  - e) Garden paths
  - f) Garden walls
4. What is a water garden? Write in detail about construction, testing, method of planting and care of water garden.
5. Write in detail about preparation, method of planting and maintainance of lawn and mention types of grasses selected for planting a lawn.
6. Write an essay on ornamental climbers with examples.
7. Write a concise account on landscape management.
8. Write short notes on any Four of the following:
  - a) Garden operations after planting
  - b) Inorganic fertilizers
  - c) Pruning
  - d) Rock garden
  - e) Method of pest and disease management
  - f) Potted plants

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Model Question Paper  
**M.Sc. Horticulture and Landscape Management - Semester – III**

**Core Paper 302: Vegetable Seed Production and Medicinal and Aromatic Plants**

Time: 3 Hours

Maximum Marks: 85

Answer any Five Questions  
All Questions carry equal Marks

1. Write about hybrid seed production in Tomato.
2. Write an account on importance and scope of Vegetable Seed Industry in India.
3. Write short notes on any Four of the following:
  - a) Seed processing
  - b) Isolation distance
  - c) Different class of seeds
  - d) Cytoplasmic male sterility
  - e) Marker genes
  - f) Seed testing
4. Write an essay on the uses, origin, distribution and cultural hints of Belladonna.
5. Give a concise account on uses, origin, propagation and processing of Rauwolfia.
6. Briefly explain hybrid seed production in Cabbage.
7. Write an account on the profile, varieties, cultural practices of Lemon grass.
8. Write short notes on 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**

**Core Paper 303: Plant Growth Regulators and Meteorology**

Time: 3 Hours

Maximum Marks: 85

Answer any Five Questions  
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 short notes on any Four of the following:
  - a) Photoperiodism
  - b) Phenolic substances
  - c) Vernalization
  - d) Abscisic acid
  - e) Ethylene
  - f) Plant Growth Regulators
4. Write a brief account on the mechanism of Auxins and Gibberellins.
5. Distinguish between Weather and Climate. Describe the various types of Climates in Indian sub-continent.
6. Discuss how Weather and Climate influence Agriculture.
7. Write an essay on the clouds and their classification. What is cloud seeding?
8. Write short notes on any Four of the following:
  - a) Solar radiation
  - b) Sun incidence
  - c) Weather forecasting
  - d) Rain fall and Horticulture
  - e) Temperature and Evaporations
  - f) Winds and their movement

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Model Question Paper  
**M.Sc. Horticulture and Landscape Management - Semester – III**

**Core Paper 304: Biostatistics**

Time: 3 Hours

Maximum Marks: 85

Answer any Five Questions  
All Questions carry equal Marks

1. What do you understand by measures of central tendency? Describe the main types of such measures and their characters.
2. Describe the various types of measures of dispersion and their significance.
3. Explain the uses of Chi-square test giving suitable examples.
4. Write short notes on any Three of the following:
  - a) Ogive
  - b) Pie-chart
  - c) Probability
  - d) Properties of Poisson distribution
5. Write the properties of Binomial distribution, Outline the method of fitting Binomial distribution to a hypothetical data.
6. Explain the method of regression analysis.
7. What is Analysis of variance? Explain the method of one way ANOVA.
8. Write short notes on any Three of the following:
  - a) Student t-test
  - b) Spearman's Rank correlation
  - c) Randomized Block design
  - d) Test for equality

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Model Question Paper  
**M.Sc. Horticulture and Landscape Management - Semester – IV**

**Core Paper 401: Landscape Designs and Ecology**

Time: 3hours

Max.Marks: 85

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. Write short notes on any three of the following
  - a). Air pollution
  - b). Topography
  - c). Sculpline in landscape
  - d). Landscape of cemeteries & crematoriums
  - e). Ecosystem
4. Discuss the relevance of landscape design in industrial design. Suggest plant material for a cement industry to combat pollution.
5. Discuss how various elements of landscape design help in creating transition spaces to integrate built environment to outdoors.
6. What is environmental impact Assessment? How does it help in development major building activities in Hilly areas?
7. 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.
8. Write short notes on any three of the following:
  - a). Roof garden
  - b). Highway landscaping
  - c). Water pollution
  - d). Indoor plants
  - e). Japanese garden design

Model Question Paper

**M.Sc. Horticulture and Landscape Management - Semester – IV**

**Core Paper 402: Recent Advances in Horticulture**

Time: 3hours

Max.Marks: 85

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. I. Give the classification of Bonsai (depending on shape & size).  
II. Describe formal upright and slanting styles with the help of suitable diagrams.
4. Write the basic characteristics of earthworms that are used in Vermiculture.
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. Write any three of the following:
  - A. Objectives of watershed Management
  - B. Training in Bonsai
  - C. Principle of flower arrangement
  - D. Ikebana
  - E. Vermicomposting Materials
  - F. Green Manuring

Model Question Paper  
**M.Sc. Horticulture and Landscape Management - Semester – IV**

**Core Paper 403: Preservation of Fruits and Vegetables**

Time: 3hours

Max.Marks: 85

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. Write short notes on any three 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
4. Discuss about principles of preservation of fruits and vegetables by heat, low temperature and chemical methods.
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. Write short notes on any three 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

Model Question Paper

**M.Sc. Horticulture and Landscape Management - Semester – IV**

**Core Paper 404: Post Harvest Technology of Horticultural Crops and  
Marketing Strategies**

Time: 3hours

Max.Marks: 85

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 short notes on any three 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
4. Write an essay on low temperature storage, controlled atmospheric storage & hypobaric storage
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. Write short notes on any three 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