

Horticulture

DAILY ONLINE TEST Series Tentative Schedule

Units to be covered

Every month, the FIRST week of Sunday Subject paper (10.00 am – 1.00 pm)

Every month, the SECOND week of Sunday GS paper (10.00 am – 1.00 pm)

ONLINE TEST format, either as a Google form or as a PDF

Week order	Subject	GS
May 4 th	Unit I: Fundamentals of Horticulture	Indian National Movement
June 1 st	Unit II: Growth and Development of Horticultural Crops + Unit X: Post-Harvest Technology of Horticultural Crops	UNIT I: General Science + Aptitude and Mental Ability
June 2 nd	Unit III: Propagation of Horticultural Crops	UNIT III: History, Culture of India + Aptitude and Mental Ability
June 3 rd	Unit IV: Management Techniques for Horticultural Crops + Unit X: Post-Harvest Technology of Horticultural Crops	UNIT II: Geography of India + Aptitude and Mental Ability
June 4 th	Unit V: Production Technology of Fruit Crops	UNIT IV: Indian Polity+ Aptitude and Mental Ability
July 1 st	Unit VI: Production Technology of Vegetable Crops	UNIT V: Indian Economy + Aptitude and Mental Ability
July 2 nd	Unit VII: Floriculture & Landscape Gardening	Development Administration in Tamil Nadu + Aptitude and Mental Ability
July 3 rd	Unit VIII: Production Technology of Spices and Plantation Crops + Unit X: Post-Harvest Technology of Horticultural Crops	UNIT VI: History, Culture, Heritage, and Socio-Political Movements in Tamil Nadu Aptitude and Mental Ability
July 4 th	Unit IX: Production Technology of Medicinal and Aromatic Crops	Tamil Eligibility Test

Every week, 25–30 online test series will be provided to you via Google Classroom. The answer key will be released daily to enhance your preparation.

Best wishes for your success

HO FIRST WEEK SCHEDULE

Unit I: Fundamentals of Horticulture

1. Scope, Importance & Global/National Scenario
2. Nutritional & Medicinal Value
3. Horticultural Zones & Supporting Agencies
4. Classification & Limiting Factors
5. Soil Requirements & Properties
6. Climatic Factors
7. Types of Gardening (Part 1)
8. Types of Gardening (Part 2) & Vegetable Forcing
9. Protected & Precision Horticulture
10. Horticulture Therapy

HO SECOND WEEK SCHEDULE

Unit II: Growth and Development of Horticultural Crops

1. Phases of Growth & Development
2. Bearing Habits & Life Cycle Classification (Annual, Biennial, Perennial)
3. Fruitfulness & Unfruitfulness – External & Internal Factors
4. Physiology of Flowering, Fruit Set, Ripening & Senescence
5. Fruit Drop – Causes & Control Measures
6. Plant Growth Regulators – Functions & Role
7. Bud Dormancy & Dormancy Breaking
8. Parthenocarpy, Parthenogenesis & Stenospermocarpy
9. Polyembryony, Vivipary & Apomixis

Unit X: Post-Harvest Technology of Horticultural Crops

1. Importance of Post-Harvest Handling & Maturity Indices

2. Post-Harvest Handling Methods (Washing, Grading, Waxing, Ripening Chambers)
3. Grades, Standards & Methods of Packing (Containers – Advantages & Disadvantages)
4. Storage Principles & Refrigerated Storage Methods

HO THIRD WEEK SCHEDULE

Unit III: Propagation of Horticultural Crops

1. Propagation – Definition & Nursery Establishment (Site selection, tools, implements)
2. Propagation Structures – Mist chamber, Phytotron, Humidifiers, Greenhouse, Glasshouse, Polyhouse, Shade net, Poly tunnels, Cold frames, Hotbeds, Pit nursery
3. Media, Containers & Soil Sterilization
4. Sexual Propagation – Merits, Demerits & Crops Propagated Through Seeds
5. Seed Viability, Longevity, Dormancy & Germination
6. Pre-Sowing Treatments – Stratification, Scarification, Seed Priming, Seed Pelleting, Seed Invigoration, Seedling Vigour
7. Raised Seed Bed & Pro-tray Nursery
8. Asexual Propagation – Merits, Demerits & Methods of Vegetative Propagation
9. Identification of Plus Trees, Mother Block, Scion Bank, Clonal Nursery & Chimeras
10. Cutting, Layering, Grafting & Budding Types
11. Anatomical & Physiological Basis of Grafting – Stock Scion Relationship, Graft Compatibility, Budwood Selection & Certification, Top working, After care
12. Propagation Through Specialized Plant Parts (Bulbs, Tubers, Offsets, Runners, Suckers, Slip, Crown, Rhizomes, Corms)
13. Quality Management & Nursery Certification
14. Micropropagation – Application, Infrastructure Requirements, Types of Media
15. Stages of Micropropagation, Micrografting & In Vitro Propagation of Important Horticultural Crops

HO FOURTH WEEK SCHEDULE

Unit IV: Management Techniques for Horticultural Crops

1. Orchard Planning, Layout, Fencing, Windbreaks & Shelter Belts
2. Spacing, Planting Systems & Soil Properties (Physical, Chemical, Soil Reaction)
3. Soil Fertility – Essential Elements, Manures, Fertilizers, Water Soluble Fertilizers, Bio-fertilizers, Vermicomposting
4. Nutrient Deficiencies & Corrective Measures – Physiological Disorders & Remedies
5. Irrigation Management – Micro irrigation, Critical Stages, Water Stress, Anti-transpirants, Water Quality, Fertigation
6. Mulching, Sod Culture & Weed Management
7. Training & Pruning – Principles, Methods & Rejuvenation of Old Orchards
8. Cropping Systems – Cover Cropping, Multitier Cropping, Intercropping
9. Special Horticultural Techniques (Pinching, Thinning, Disbudding, Blanching, Smudging, Notching, Ringing)
10. Principles of Organic Horticulture, GAP & GMP

Unit X: Post-Harvest Technology of Horticultural Crops

1. Pre-cooling, CAS, MAS & Low Pressure Storage
2. Cold Chain Concept

HO FIFTH WEEK SCHEDULE

Unit V: Production Technology of Fruit Crops

1. Scope, Importance, Composition & Uses of Fruit Crops
2. Origin, Distribution, Species, Season, Climate & Soil Requirements
3. Varieties & Hybrids
4. Propagation Techniques

5. Planting Systems, Spacing, HDP & UHDP
6. Water & Nutrient Management – Fertigation
7. Weed Management
8. Canopy Management – Training & Pruning
9. Intercultural Practices & Off-Season Production
10. Special Horticultural Techniques & Use of Plant Growth Regulators
11. Maturity Indices, Harvest & Yield
12. Nutrient Deficiencies, Physiological Disorders & Corrective Measures
13. Pest & Disease Management in Fruit Crops
14. Major Tropical & Subtropical Fruit Crops (Mango, Banana, Citrus, Grapes, Papaya, Guava, Sapota, Pineapple, Jackfruit, Pomegranate, Aonla, Annona, Ber, Litchi, Avocado, etc.)
15. Arid, Temperate & Minor Fruit Crops (Apple, Pear, Plum, Peach, Strawberry, Walnut, Almond, Kiwi, Date Palm, Fig, Jamun, Phalsa, Bael, Carambola, Mangosteen, Rambutan, etc.)

HO SIXTH WEEK SCHEDULE

Unit VI: Production Technology of Vegetable Crops

1. Scope, Importance, Composition & Uses of Vegetable Crops
2. Origin, Distribution, Area & Production
3. Soil & Climatic Requirements
4. Varieties & Hybrids
5. Propagation Methods, Seed Rate, Sowing & Nursery Practices (Containerized Seedling Production)
6. Season, Planting Methods & Intercultural Practices
7. Water, Nutrient & Weed Management – Fertigation
8. Training in Vegetables & Other Intercultural Practices
9. Maturity Indices, Harvest & Yield
10. Nutrient Deficiencies, Physiological Disorders & Corrective Measures

11. Solanaceous Vegetables (Tomato, Brinjal, Chilli, Capsicum) & Bhendi
12. Leguminous & Bulbous Vegetables (Beans, Peas, Onion, Garlic)
13. Tuber Crops (Potato, Tapioca, Sweet Potato, Elephant Foot Yam, Dioscorea, Colacassia) & Perennial Vegetables (Drumstick, Cocciena)
14. Cucurbitaceous, Cruciferous & Root Vegetables (Cucumber, Bitter Gourd, Cabbage, Cauliflower, Carrot, Radish, Beetroot)
15. Leafy Vegetables, Protected Cultivation, Precision Farming & Seed Production

HO SEVENTH WEEK SCHEDULE

Unit VII: Floriculture & Landscape Gardening

1. Scope, Importance, Uses, Origin, Distribution, Area & Production of Flower Crops
2. Climate, Soil Requirements, Species & Varieties
3. Propagation, Season, Spacing & Planting Methods
4. Irrigation, Nutrient Management, Fertigation & Weed Management
5. Training, Pruning, Intercultural Operations & Special Horticultural Techniques
6. Growth Regulators, Off-Season Production, Maturity Indices, Harvest & Yield
7. Pest & Disease Management in Flower Crops
8. Loose Flower Crops (Jasmine, Rose, Tuberose, Chrysanthemum, Marigold, Nerium, Ixora, Crossandra)
9. Cut Flowers (Rose, Carnation, Anthurium, Orchid, Liliun, Gerbera) & Cut Foliage/Fillers
10. Principles of Landscape Designing & Styles of Gardening (Hindu, English, Mughal, Japanese, Persian, Italian, French)
11. Garden Components – Trees, Shrubs, Hedges, Edges, Annuals, Creepers, Climbers, Cacti, Succulents
12. Lawn – Types of Grasses, Layout, Planting & Maintenance
13. Indoor Plants, Interior Spacing, Garden Adornments & Flower Arrangement
14. Bonsai – Styles & Culture

15. Special Gardening Types (Kokedama, Tray, Terrarium, Roof, Vertical), Industrial/Institutional/Public/Private Landscaping & AutoCAD Garden Design

HO EIGHTH WEEK SCHEDULE

Unit X: Post-Harvest Technology of Horticultural Crops

1. Importance & Scope of Processing Industries in India
2. Principles of Preservation (Canning, Dehydration, Freezing, Fermentation)
3. Use of Chemicals (Preservatives) & Irradiation
4. GMP, Food Safety & Quality Control

Unit VIII: Production Technology of Spices and Plantation Crops

1. Scope, Importance, Composition, Uses, Origin, Distribution, Area & Production of Spices and Plantation Crops
2. Climate, Soil Requirements, Species & Varieties
3. Propagation Methods, Season, Seed Rate, Spacing, Planting Systems, HDP & UHDP
4. Irrigation, Nutrient Management, Fertigation & Weed Management
5. Training, Pruning, Cropping Systems (Multitier, Cover Cropping, Intercropping)
6. Growth Regulators, Mulching, Shade Trees & Canopy Regulation
7. Maturity Indices, Harvest, Yield & Pest/Disease Management
8. Processing Methods of Major Spices (Black Pepper, Cardamom, Turmeric, Ginger, Clove, Nutmeg, Cinnamon, Coriander, Fenugreek, Cumin, Tamarind, Vanilla, Curry Leaf, Allspice)
9. Seed Spices, Tree Spices, Herbal Spices & Minor Spices
10. Plantation Crops (Tea, Coffee, Rubber, Cocoa, Coconut, Oil Palm, Cashew, Palmyrah, Arecanut)

HO NINTH WEEK SCHEDULE

Unit IX: Production Technology of Medicinal and Aromatic Crops

1. Scope, Importance, Composition, Uses, Origin, Distribution, Area & Production
2. Ex Situ & In Situ Conservation, Classification, Constraints in Cultivation
3. Climate, Soil, Varieties, Propagation & Nursery Practices
4. Planting Methods, Cropping Systems, Manures, Fertilizers & Irrigation
5. Intercultural Operations, Harvest Indices, Harvest, Yield & Pest/Disease Management
6. Production Systems – Contract Farming, GAP, GCP, GMP, Organic Production & Certification
7. Classification & Distillation Methods of Essential Oils
8. Secondary Metabolite Production, Value Addition & Organizational Support
9. Medicinal Crops (Senna, Periwinkle, Glory Lily, Ashwagandha, Medicinal Coleus, Solanum, Sweet Flag, Aloe, Isabgol, Phyllanthus, Stevia, Opium Poppy)
10. Aromatic Crops (Lemongrass, Citronella, Vetiver, Ocimum, Davana, Mint, Geranium, Patchouli, Eucalyptus)