

જાહેરાત ક્રમાંક: ૧૮/૨૦૨૦-૨૧, સંયુક્ત ખેતી નિયામક, વર્ગ-૧, ની જગ્યા પર
ભરતી માટેની પ્રાથમિક કસોટીનાં ભાગ-૧ અને ભાગ-૨ ના ૧૮૦ મિનિટના સંયુક્ત

પ્રશ્નપત્રનો અભ્યાસક્રમ

પ્રાથમિક કસોટીનો અભ્યાસક્રમ		
ભાગ-૧		
કુલ પ્રશ્નો-૧૦૦	માધ્યમ: ગુજરાતી	કુલ ગુણ :૧૦૦
૧	ભારતની ભૂગોળ- ભૌગોલિક, આર્થિક, સામાજિક, કુદરતી સંસાધન અને વસ્તી અંગેની બાબતો- ગુજરાતના ખાસ સંદર્ભ સાથે	
૨	ભારતનો સાંસ્કૃતિક વારસો- સાહિત્ય, કલા, ધર્મ અને સ્થાપત્યો- ગુજરાતના ખાસ સંદર્ભ સાથે	
૩	ભારતનો ઇતિહાસ- ગુજરાતના ખાસ સંદર્ભ સાથે	
૪	ભારતની અર્થવ્યવસ્થા અને આયોજન	
૫	<u>ભારતીય રાજનીતિ અને ભારતનું બંધારણ:</u> (૧) આમુખ (૨) મૂળભૂત અધિકારો અને ફરજો (૩) રાજ્યનીતિના માર્ગદર્શક સિદ્ધાંતો (૪) સંસદની રચના (૫) રાષ્ટ્રપતિની સત્તા (૬) રાજ્યપાલની સત્તા (૭) ન્યાયતંત્ર (૮) અનુસૂચિત જાતિ, અનુસૂચિત જનજાતિ અને સમાજના પછાત વર્ગો માટેની જોગવાઈઓ (૯) એટર્ની જનરલ (૧૦) નીતિ આયોગ (૧૧) પંચાયતી રાજ (૧૨) નાણા પંચ (૧૩) બંધારણીય તથા વૈધનિક સંસ્થાઓ- ભારતનું ચૂંટણી પંચ, સંઘ લોક સેવા આયોગ, રાજ્ય લોક સેવા આયોગ, કોમ્પ્ટ્રોલર એન્ડ ઓડિટર જનરલ; કેન્દ્રીયસતર્કતા આયોગ, લોકપાલ તથા લોકાયુક્ત અને કેન્દ્રીય માહિતી આયોગ	
૬	સામાન્ય બૌદ્ધિક ક્ષમતા કસોટી	
૭	સામાન્ય વિજ્ઞાન, પર્યાવરણ અને ઈન્ફર્મેશન એન્ડ કોમ્યુનિકેશન ટેકનોલોજી	
૮	ખેલ જગત સહિત રોજબરોજના પ્રાદેશિક, રાષ્ટ્રીય અને આંતરરાષ્ટ્રીય મહત્વના બનાવો	

Syllabus of Preliminary Test

Part-1

Total Questions-100

Medium:Gujarati

Total Marks- 100

1	Geography of India-Physical, Economic, Social, Natural Resources and population related topics- with special reference to Gujarat
2	Cultural heritage of India-Literature, Art, Religion and Architecture- with special reference to Gujarat
3	History of India with special reference to Gujarat
4	Indian Economy and Planning
5	<u>Indian Polity and the Constitution of India:</u> (1) Preamble (2) Fundamental Rights and Fundamental Duties (3) Directive Principles of State Policy (4) Composition of Parliament (5) Powers of the President of India (6) Powers of Governor (7) Judiciary (8) Provisions for Scheduled Castes, Scheduled Tribes and backward classes of the society (9) Attorney General (10) NITIAayog (11) Panchayati Raj Institutions (12) Finance Commission (13) Constitutional and Statutory Bodies: Election Commission of India, Union Public Service Commission, State Public Service Commission, Comptroller and Auditor General; Central Vigilance Commission, Lokpal and Lokayukta, Central Information Commission
6	General Mental Ability
7	General Science, Environment and Information & Communication Technology
8	Daily events of Regional, National and International Importance including Sports

Part-2
Syllabus for the preliminary test for recruitment on the post of
Joint Director of Agriculture, Class-I in the Gujarat Agriculture
Service

Marks – 200

Questions – 200

Medium - English

1. Basic Sciences

Biochemistry

Basic Biochemistry, Intermediary Metabolism, Enzymology, Molecular Biology, Biochemical Techniques, Immuno Chemistry, Plant Biochemistry, Animal Biochemistry, Food and Nutritional Biochemistry, Carbon and Nitrogen Metabolism, Biochemistry of Cereal, Oilseeds and Pluses.

Microbiology

Principles of Microbiology, Microbial Physiology and Metabolism, Microbial Genetics, Soil Microbiology, Microbial Biotechnology, Food and Dairy Microbiology, Bacteriophages, Environmental Microbiology, Plant-Microbe Interactions, Industrial Microbiology, Biofertilizer Technology, Cyanobacterial and Algal Biotechnology.

Plant Physiology

Principles Of Plant Physiology, Plant Developmental Biology – Physiological And Molecular Basis, Physiological And Molecular Responses Of Plants To Abiotic Stresses, Hormonal Regulation Of Plant Growth And Development, Physiology Of Growth And Yield and Modeling, Genome Organization in Higher Plants, Morphogenesis, Tissue Culture and Transformation, Physiology of Crop Plants –Specific Case Studies, Physiological and Molecular Aspects of Photosynthesis- Carbon and Nitrogen Assimilation, Mineral Nutrition.

2. Biotechnology & Bioinformatics

Plant Molecular Biology and Biotechnology

Principles of Biotechnology, Fundamentals of Molecular Biology, Molecular Cell Biology, Plant Tissue Culture & Genetic Transformation, Techniques In Molecular Biology I, Microbial/ Industrial Biotechnology, Molecular Breeding, Genomics & Proteomics, Techniques in Molecular Biology II, Biosafety, IPR and Bioethics, Animal Biotechnology, Immunology and Molecular Diagnostics, Nano-Biotechnology, Biostatistics And Computers, Introduction To Bioinformatics, Environmental Biotechnology, Molecular Cytogenetics, Molecular Farming.

3. Plant Sciences

Genetics and Plant Breeding

Principles Of Genetics, Principles Of Cytogenetics, Principles Of Plant Breeding, Principles Of Quantitative Genetics, Mutagenesis and Mutation Breeding, Population Genetics, Heterosis Breeding, Cell Biology and Molecular Genetics, Biotechnology For Crop Improvement, Breeding for Biotic and Abiotic Stress Resistance, Breeding Cereals, Forages And Sugarcane, Breeding Legumes, Oilseeds And Fibre Crops, Breeding for Quality Traits, Gene Regulation and Expression, Maintenance Breeding, Concepts of Variety Release and Seed Production, Data Base Management, Evaluation and Utilization of PGR, Genetic Control of Plant Reproduction, Breeding for Vegetable Crops.

Seed Science and Technology

Floral Biology, Seed Development & Maturation, Principles of Seed Production, Seed Production in field Crops, Seed Production in Vegetables, Seed Production in Flower, Medicinal Fruits and Plantation Crops, Seed Legislation And Certification, Seed Processing And Storage, Seed Quality Testing, Seed Physiology, Seed Pathology, Seed Entomology, Seed Production in Pasture, Forage and Green Manure Crops, Seed Storage and Deterioration, Seed Marketing and Management, Emerging Trends in Seed Quality Enhancement.

4. Physical Sciences

Agricultural Meteorology

Fundamentals of Meteorology and Climatology, Fundamentals of Agricultural Meteorology, Micrometeorology, Agro-Meteorological Measurements and Instrumentation, Soil Water Balance Climatology, Crop Weather Models, Weather Modification and Risk Management Strategies, Principles of Remote Sensing and Its Applications In Agriculture, Applied Agricultural Climatology

Agronomy

Modern Concepts In Crop Production, Principles and Practices of Soil Fertility and Nutrient Management, Principles and Practices of Weed Management, Principles and Practices of Water Management, Agrometeorology and Crop Weather Forecasting, Agronomy of Major Cereals and Pulses, Agronomy of Oilseed, Fibre and Sugar Crops, Agronomy of Medicinal, Aromatic and Under Utilized Crops, Agronomy of Fodder and Forage Crops, Agrostology and Agroforestry, Cropping Systems, Dry Land Farming, Principles and Practices of Organic Farming

Soil Science

Soil Physics, Soil Fertility and Fertilizer Use, Soil Chemistry, Soil Erosion and Conservation, Soil Mineralogy, Genesis, Classification and Survey, Soil Biology and Biochemistry, Geomorphology and Geochemistry, Radioisotopes In Soil and Plant Studies, Soil, Water and Air Pollution, Remote Sensing and GIS Techniques for Soil and Crop Studies, Analytical Techniques and Instrumental Methods In Soil and Plant Analysis, System Approaches In Soil and Crop Studies, Management of Problematic Soils and Waters, Fertilizer Technology, Land Degradation and Restoration

5. Plant Protection

Entomology

Insect Morphology, Insect Anatomy, Physiology and Nutrition, Principles of Taxonomy, Classification of Insects, Insect Ecology, Insect Pathology, Biological Control of Crop Pests and Weeds, Plant Resistance to Insect, Toxicology of Insecticides, Principles of Integrated Pest Management, Pests of Field Crops, Pests of Horticultural and Plantation Crops, Storage Entomology, Insect Vectors of Plant Viruses and Other Pathogens, General Acarology, Soil Arthropods and Their Management, Techniques In Plant Protection, Commercial Entomology, Plant Quarantine

Nematology

Principles of Nematology, Structural Organization of Nematodes, Classification of Nematodes, Nematological Techniques, Nematode Diseases of Crops, Nematode Biology and Physiology, Nematode Ecology, Nematode Interactions with Other Organisms, Nematode Management, Beneficial Nematodes, Principles of Integrated Pest Management.

Plant Pathology

Mycology, Plant Virology, Plantbacteidology, Principles of Plant Pathology, Detection and Diagnosis of Plant Diseases, Principles of Plant Disease Management, Diseases of Field and Medicinal Crops, Diseases of Fruits, Plantation and Ornamental Crops, Diseases of Vegetable and Spices Crops, Seed Healthy Technology, Chemicals in Plant Disease Management, Ecology of Soil-Borne Plant Pathogens, Disease Resistance in Plants, Biological Control of Plant Diseases, Integra Ted Disease Management, Mushroom Production Technology, Epidemiology And Forecasting of Plant Diseases, Post-Harvest Diseases.

6. Social Sciences

Agricultural Economics

Micro Economic Theory and Applications, Macro Economics and Policy, Evolution of Economic Thought, Agricultural Production Economics, Agricultural Marketing & Price Analysis, Research Methodology For Social Sciences, Econometrics, Linear Programming, Agricultural Finance And Project Management, International Economics, Agricultural Development Policy Analysis, Institutional Economics, Natural Resource and Environmental Economics, Intellectual Property Management, Rural Marketing, Commodity Futures Trading, Computer Applications For Agricultural Economics.

Agricultural Extension

Development Perspectives of Extension Education, Development Communication And Information Management, Diffusion And Adoption of Innovations, Research Methods In Behavioral Sciences, E-Extension, Entrepreneurship Development and Management In Extension, Human Resource Development, Visual Communication, Participatory Methods for Technology Development and Transfer, Gender Sensitization for Development, Perspectives of Distance Education, Market-Led Extension

7. Horticultural Science

Fruit Science

Tropical and Dry Land Fruit Production, Subtropical and Temperate Fruit Production, Biodiversity and Conservation of Fruit Crops, Canopy Management in Fruit Crops, Propagation and Nursery Management for Fruit Crops, Breeding of Fruit Crops, Post-Harvest Technology for Fruit Crops, Growth and Development of Horticultural Crops, Biotechnology of Horticultural Crops, Organic Horticulture, Protected Fruit Culture, Gap For Horticultural Crops, Climate Management in Horticultural Production.

Vegetable Science

Production Technology of Cool Season Vegetable Crops, Production Technology of Warm Season Vegetable Crops, Breeding of Vegetable Crops, Growth and Development of Vegetable Crops, Seed Production Technology of Vegetable Crops, Systematics of Vegetable Crops, Production Technology of Underexploited Vegetable Crops, Organic Vegetable Production Technology, Fundamentals of Processing of Vegetables.

Floriculture and Landscape Architecture

Breeding of Flower Crops and Ornamental Plants, Production Technology of Cut Flowers, Production Technology of Loose Flowers, Landscaping and Ornamental Gardening, Protected Floriculture, Value Addition in Flowers, Turfing and Turf Management, Cad for Outdoor and Indoorscaping.

Plantation, Spices, Medicinal & Aromatic Crops

Production of Plantation Crops, Production Technology of Spice Crops, Production Technology of Medicinal and Aromatic Crops, Breeding of Plantation Crops and Spices, Breeding of Medicinal and Aromatic Crops, Processing of Plantation Crops, Spices, Medicinal and Aromatic Plants, Organic Spice and Plantation Crop Production Technology, Underexploited Medicinal and Aromatic Plants.

Post Harvest Technology

Principles of Post Harvest Management for Perishable Horticultural Produce, Fundamentals of Processing of Fruits and Vegetables, Laboratory Analysis and Quality Assurance Techniques of Fresh and Processed Horticultural Produce, Techniques for Sensory Analysis for Processed Produce, Pre-Harvest Practices Affecting Post Harvest Life of Perishable Horticultural Produce, Principles of Post Harvest Management of Spices and Plantation Crops, Principles of Post Harvest Management of Ornamental, Medicinal and Aromatic Plants, Processing of Plantation Crops, Spices, Medicinal and Aromatic Plants, Packaging of Perishable Horticultural Produce, Packaging Technology of Processed Horticultural Produce, Process Engineering of Horticultural Crops.

- 8. Programmes and Schemes of Union Government and State Government related to Agriculture. Important agencies (including Board/Corporation) of Union and State Government implementing various programmes and scheme related to Agriculture.**
- 9. Classification of Soil of Gujarat, their physical, chemical and biological properties. Measures of improving and maintenance of their fertility and productivity. Soil conservation program.**
- 10. Climate Change and its impact on Agriculture. Importance of environmental conservation and factors affection it. Natural resources, their conservation and utility to human being.**
- 11. Use of information and communication technology and space technology in the field of agriculture.**
- 12. Current Trends and Recent Advancements in the field of Agriculture Science.**