

INSIGHTS IAS AGRICULTURE OPTIONAL TEST SERIES FOR CSE & IFS 2023

DATE	SUBJECT	SYLLABUS
21-06-2022	ECOLOGY + FORESTRY	<ol style="list-style-type: none"> 1. Ecology and its relevance to man 2. Natural resources, their sustainable management and conservation 3. Physical and social environment as factors of crop distribution and production. 4. Agro ecology; cropping pattern as indicators of environments. 5. Environmental pollution and associated hazards to crops, animals and humans. 6. Climate change - International conventions and global initiatives. 7. Greenhouse effect and global warming. 8. Advance tools for ecosystem analysis - Remote sensing (RS) and Geographic Information Systems (GIS). <p>Forestry:</p> <ol style="list-style-type: none"> 1. Important features and scope 2. Various types of forestry plantations such as social forestry, agro-forestry, and natural forests. 3. Propagation of forest plants. 4. Forest products. Agro forestry and value addition. 5. Conservation of forest flora and fauna.
05-07-2022	AGRONOMY TEST 01	<ol style="list-style-type: none"> 1) Agronomy: <ol style="list-style-type: none"> a. Cropping patterns in different agro-climatic zones of the country. b. Impact of high yielding and short-duration varieties on shifts in cropping patterns.

INSIGHTS IAS AGRICULTURE OPTIONAL TEST SERIES FOR CSE & IFS 2023

		<ul style="list-style-type: none"> c. Concepts of various cropping and farming systems. d. Organic and Precision farming. e. Dry land agriculture and its problems. f. Technology for stabilizing agriculture production in rain fed areas. g. Water-use efficiency in relation to crop production, <p>2) Criteria for scheduling irrigations.</p>
20-07-2022	AGRONOMY TEST 02	<p>Package of practices for production of important cereals, pulses, oil seeds, fibres, sugar,, commercial and fodder crops.</p> <p>Weed science:</p> <ol style="list-style-type: none"> 1. Weeds - their characteristics. 2. Dissemination and association with various crops; their multiplications; 3. Cultural, biological, and chemical control of weeds.
07 – 08 – 2022	SOIL SCIENCE + SOIL WATER CONSERVATION 01	<p>Soil science and nutrient management:</p> <p>Soil- physical, chemical and biological properties.</p> <ol style="list-style-type: none"> 2. Processes and factors of soil formation. 3. Soils of India. 4. Mineral and organic constituents of soils and their role in maintaining soil productivity. 5. Essential plant nutrients and other beneficial elements in soils and plants. 6. Principles of soil fertility, soil testing and fertilizer recommendations. 7. Integrated nutrient management. 8. Bio-fertilizers. 9. Losses of nitrogen in soil, nitrogen-use efficiency in submerged rice soils, nitrogen fixation in soils. 10. Efficient phosphorus and potassium use.

INSIGHTS IAS AGRICULTURE OPTIONAL TEST SERIES FOR CSE & IFS 2023

22-08-2022	SOIL SCIENCE + SOIL WATER CONSERVATION 02	<p>SOIL SCIENCE:</p> <ol style="list-style-type: none"> 1. Problem soils and their reclamation. 2. Soil factors affecting greenhouse gas emission. <p>Soil and water conservation:</p> <ol style="list-style-type: none"> 1. Soil conservation 2. Integrated watershed management. 3. Soil erosion and its management. 4. Ways and means of reducing runoff losses of irrigation water. 5. Rainwater harvesting. 9. Drip and sprinkler irrigation. 6. Drainage of waterlogged soils, 7. Quality of irrigation water 8. Effect of industrial effluents on soil and water pollution. 9. Irrigation projects in India.
		<p>Agricultural economics:</p> <ol style="list-style-type: none"> 1. Farm management, scope, importance and characteristics, farm planning. 2. Optimum resource use and budgeting. 3. Economics of different types of farming systems. 4. Marketing management - strategies for development, market intelligence. 5. Price fluctuations and their cost; role of co-operatives in agricultural economy;

INSIGHTS IAS AGRICULTURE OPTIONAL TEST SERIES FOR CSE & IFS 2023

17-09-2022	AGRI ECONOMICS + AGRI EXTENSION	<ol style="list-style-type: none"> 6. Types and systems of farming and factors affecting them. 7. Agricultural price policy. 8. Crop Insurance. <p>Agricultural extension:</p> <ol style="list-style-type: none"> 1. Agricultural extension, its importance and role, 2. Methods of evaluation of extension programmes, 3. Socio-economic survey and status of big, small and marginal farmers and landless agricultural labourers. 4. Training programmes for extension workers 5. Role of Krishi Vigyan Kendra's (KVK) in dissemination of Agricultural technologies. 6. Non-Government Organization (NGO) and self-help group approach for rural development.
24-09-2022	PAPER 1 FULL LENGTH	PAPER 1 FULL SYLLABUS
10-10-2022	PLANT GENETICS + PLANT BREEDING 01	<ol style="list-style-type: none"> 1. Cell biology: 2. 1. Cell structure, function and cell cycle. 3. Synthesis, structure and function of genetic material. 4. Laws of heredity. 5. Chromosome structure, chromosomal aberrations Linkage and cross-over, and their significance in recombination breeding. <p>Plant breeding:</p> <ol style="list-style-type: none"> 6. History of plant breeding. 7. Modes of reproduction, selfing and crossing techniques.

INSIGHTS IAS AGRICULTURE OPTIONAL TEST SERIES FOR CSE & IFS 2023

		<ol style="list-style-type: none"> 8. 3. Origin, evolution and domestication of crop plants, centre of origin, law of homologous series, crop genetic resources conservation and utilization. 9. 4. Application of principles of plant breeding, improvement of crop plants. <p>5. Molecular markers and their application in plant improvement.</p>
25-10-2022	PLANT GENETICS + PLANT BREEDING 02	<p>Cell biology:</p> <ol style="list-style-type: none"> 1. Polyploidy, euploids and aneuploids. 2. Mutations - and their role in crop improvement. 3. Heritability, sterility and incompatibility, classification and their application in crop improvement. 4. Cytoplasmic inheritance, sex-linked, sex-influenced and sex-limited characters. <p>Plant breeding:</p> <ol style="list-style-type: none"> 1. Pure-line selection, pedigree, mass and recurrent selections, combining ability, its significance in plant breeding. 2. Heterosis and its exploitation. 3. Somatic hybridization. 4. Breeding for disease and pest resistance. 5. Role of interspecific and intergeneric hybridization. 6. Role of genetic engineering and biotechnology in crop improvement. 7. Genetically modified crop plants.
		<p>Seed production and technology:</p> <ol style="list-style-type: none"> 1. Seed production and processing technologies. 2. Seed certification, seed testing and storage. <p>Plant physiology:</p> <ol style="list-style-type: none"> 1. Principles of Plant Physiology with reference to plant nutrition, absorption,

INSIGHTS IAS AGRICULTURE OPTIONAL TEST SERIES FOR CSE & IFS 2023

10-11-2022	SEED SCIENCE AND TECH + PLANT PHYSIOLOGY + FOOD SCIENCE 01	<p>translocation and metabolism of nutrients.</p> <p>2. Soil - water- plant relationship. 3. Enzymes and plant pigments; 4. Photosynthesis- modern concepts and factors affecting. 5. C3, C4 and CAM mechanisms</p> <p>Food production and nutrition management:</p> <ol style="list-style-type: none"> 1. Food production and consumption trends in India. 2. Food security and growing population - vision 2020. 3. Reasons for grain surplus. 4. National and international food policies. 5. Production, procurement, distribution constraints.
25-11-2022	SEED SCIENCE AND TECH + PLANT PHYSIOLOGY + FOOD SCIENCE 02	<p>Seed production and technology:</p> <ol style="list-style-type: none"> 3. DNA finger printing and seed registration. 4. Role of public and private sectors in seed production and marketing. 5. Intellectual Property Rights (IPR) issues, WTO issues and its impact on Agriculture <p>Plant physiology:</p> <ol style="list-style-type: none"> 1. Factors affecting aerobic and anaerobic respiration; 2. Carbohydrate, Protein and fat metabolism. 3. Growth and development; photoperiodism and vernalization. 4. 9. Plant growth substances and their role in crop production. 5. Physiology of seed development and germination; dormancy. 6. Stress physiology - drought, salt and water stress. <p>Food production and nutrition management:</p> <ol style="list-style-type: none"> 1. Availability of food grains, per capita expenditure on food.

INSIGHTS IAS AGRICULTURE OPTIONAL TEST SERIES FOR CSE & IFS 2023

- a. Trends in poverty, Public Distribution System and Below Poverty Line population, Targeted Public Distribution System (PDS), policy implementation in context to globalization.
2. Processing constraints.
3. Relation of food production to National Dietary Guidelines and food consumption pattern.
4. Food based dietary approaches to eliminate hunger.
5. Nutrient deficiency – 1. Micro nutrient deficiency , Protein Energy Malnutrition or Protein Calorie Malnutrition (PEM or PCM),
6. Micro nutrient deficiency and HRD in context of work capacity of women and children.
7. Food grain productivity and food security.

INSIGHTS IAS AGRICULTURE OPTIONAL TEST SERIES FOR CSE & IFS 2023

11- 12 – 2022	PLANT PROTECTION + HORTICULTURE	<p>Plant protection:</p> <ol style="list-style-type: none"> 1. Diagnosis of pests and diseases of field crops, vegetables, orchard and plantation crops and their economic importance. 2. Classification of pests and diseases and their management. 3. Integrated pest and disease management. 4. Storage pests and their management. <p>Horticulture:</p> <ol style="list-style-type: none"> 1. Post-harvest technology and value addition of fruits and vegetables 2. Landscaping and commercial floriculture 3. Medicinal and aromatic plants. 4. Role of fruits and vegetables in human nutrition.
25-12-2022	PLANT PROTECTION + HORTICULTURE	<p>Plant protection:</p> <ol style="list-style-type: none"> 1. Biological control of pests and diseases. 2. Epidemiology and forecasting of major crop pests and diseases. 3. Plant quarantine measures. 4. Pesticides, their formulation and modes of action. <p>Horticulture:</p> <ol style="list-style-type: none"> 1. Major fruits, plantation crops, vegetables, spices and flower crops 2. Package practices of major horticultural crops. 3. Protected cultivation and high tech horticulture.

INSIGHTS IAS AGRICULTURE OPTIONAL TEST SERIES FOR CSE & IFS 2023

31-12-2022	PAPER 2 FULL LENGTH	PAPER 2 FULL SYLLABUS
08-01-2023 (9am to 12pm)	PAPER 1 FULL LENGTH	PAPER 1 FULL SYLLABUS
08-01-2023(2 PM to 5pm)	PAPER 2 FULL LENGTH	PAPER 2 FULL SYLLABUS

Fee: 14000/- incl. GST

Early Bird Offer: 10% discount till 19th June 2022

Course Valid till January 2023