

UNIVERSITY OF JAMMU

Notification

Syllabus of Entrance/Screening Test for the post of Field Assistant-cum-storekeeper (Landscaping Unit)

S.No.	Examination Type	Units	No. of Questions	Marks	Duration
1.	Multiple Choice Questions	1. Fundamentals and commercial uses of Agriculture	24	24	2hrs
2.		2. Fundamentals and commercial uses of Horticulture and Floriculture	24	24	
3.		3. Field Practices	28	28	
4.		4. Management and handling	24	24	
		Total	100		

I. Fundamentals and commercial uses of Agriculture

- 1.1 History of Agriculture and its development; Ancient India Agriculture in Civilization Era, Development of Agricultural Technology in India, Agro climatic zones of India, soil and climatic requirement, varieties, National & International Agricultural Research Institutes in India.
- 1.2 Basic elements, adaptation and principles of crop production; Origin, geographical distribution; Principles of crop ecology and geography; climate shift and its ecological implications; cropping system and soil groups formed in different parts of the country as defined by ICAR.
- 1.3 Concept, principles and scope of Agronomy; Art, science and business of crop production; crop density and geometry; Agricultural Marketing-Concept and definitions of market, marketing, market structure, marketing mix and market segmentation, classification and characteristics of agricultural markets.
- 1.4 Economic importance of major field crops: Cereals (wheat, maize, rice and barley); Pulses: (chickpea, lentil, peas, French bean, lathyrus); Oilseeds (rapeseed and mustard, sunflower, safflower and linseed), Sugar crops (sugarcane and sugar beet).

II. Fundamentals and commercial uses of Horticulture and Floriculture

- 2.1 History, definition, scope and importance of horticulture; classification of horticultural crops and nutritive values; Horticultural (fruit and vegetable) zones of India; detailed study of area, production and export and import potential, varieties, climate and soil requirements.
- 2.2 Horticultural crops, identification, propagation and nursery techniques and their management; planting density and systems; Gardens-Types, principles, planning, layout and planting; Orchards-principles, planning, planting and management.
- 2.3 Importance and scope of fruit and vegetable preservation industries in India; packaging-concept, types and importance; Principles of preservation; heat, low temperature, chemicals and fermentation; Preservation through canning, bottling, freezing, dehydration, drying, UV and ionizing radiation; Preparation of jam, jellies, marmalades, candies, crystallized and glazed fruit, preserves, chutney, pickles, ketchup, sauce, puree, syrup, juices, squashes and cordials.
- 2.4 History, definition, scope and importance of Floriculture; Identification of commercially important floricultural crops, Floriculture industry, area and production; Classification, design values and general cultivation aspects of ornamental plants grown for their flowers (rose, carnation, chrysanthemum, marigold, tuberose, gladiolus, orchids); medicinals and aromatics (menthe, lemon grass, citronella, palma rosa, isabgol and safed musli) and /or for foliage and architecture (grasses, creepers, hedges, climbers, trees, palms, cycads, ferns and sellaginellas, cacti and succulents).

III. Field Practices

- 3.1 Cultural practices and yield of kharif and rabi crops; Production and practices; Precision and Integrated farming systems, Principles of field experimentation; Geographical distribution of crop plants, pruning of orchard trees, training and pruning in apple, pear, plum, peach and nut crops.
- 3.2 Propagation practices: Propagation by cutting, layering, budding and grafting. Crop specific practices like pinching, disbudding, stacking, bud netting, types and methods of pruning and training of fruit crops; Planning and designing gardens, layout of location of components of garden study.
- 3.3 Landscape planning for homes and farm complexes, functional uses of plants in the landscape; Planning design of homes, roadsides, farm complexes, avenues for new colonies, traffic islands; preparation of land for lawn and planting; Description and design of garden structures, layout of rock, water, terrace, and Japanese gardens, recreational and children's corner.
- 3.4 Bio-aesthetic planning, definition, objectives; Planning and designing of home gardens, colonies, country planning and urban landscape; Development of institutional gardens; planning and planting of avenues, public parks, beautifying schools, railway lines, and stations, factories, bus stands, airports, corporate buildings, dams, hydroelectric stations, river banks, play grounds; Gardens for places of religions importance viz. temples, churches, mosques, tombs, etc.

IV. Management and handling

- 4.1 Principles of organic farming, market chain management, fertility principle of nutrient and water management Acid; calcareous and salt affected soils – characteristics and management; Integrated plant nutrient management, Nutrient use efficiency and management; Fertilizer use efficiency and management; Management of poor-quality irrigation water in crop management.
- 4.2 Orchard and estate management: importance, objectives, merits and demerits, clean cultivation; Management in horticultural crops-manures and fertilizers; maturity indices, harvesting and post-harvest handling of fruits and vegetables; Handling and storage of apple, pear, peach, apricot, cherry, persimmon, strawberry, kiwi, Queens land nut (Mecadamia nut), almond, walnut, pecan nut, hazel nut and chest nut; Harvesting, handling and grading of fruits, vegetables, cut flowers, plantation crops, medicinal and aromatic plants.
- 4.3 Weed management: Principles of weed management; Classification, biology and ecology of weeds, crop weed competition and allelopathy; concepts and methods of weed control; Integrated weed management; Weed management in major field and horticultural crops.
- 4.4 Integrated pest management: Scientific name, order, family, host range, distribution, biology and bionomics, nature of damage, and management of major pests and scientific name, distribution, nature of damage and control practices of other important arthropod pests of various fields, vegetable, fruit plantation and ornamental crops, spices and condiments; Insect pests, mites, rodents, birds and microorganisms associated with stored grain and their management. Storage structure and methods of grain storage and fundamental principles of grain store management.

No. Estab/C&R-NTW/21/1082
Dated: 31-12-2021


REGISTRAR
