

# **RAJASTHAN PUBLIC SERVICE COMMISSION, AJMER**

## **SYLLABUS FOR SCREENING TEST FOR THE POST OF SUPERINTENDENT GARDEN FOR PUBLIC WORKS DEPARTMENT**

### **PART-A**

#### **(General Knowledge of Rajasthan)**

History, Art, Culture, Literature and Heritage of Rajasthan:- Prehistoric Rajasthan: Harappan and chalcolithic settlements. Cultural Achievements of the Rulers of Rajasthan from Early Medieval period to British period. Political Resistance of Rajput Rulers: Sultanate, Mughal and other regional powers with special reference to Rawal Ratan Singh, Hammir Chauhan, Maharana Kumbha, Rao Maldev and Maharana Pratap. Commencement of Modernity in Rajasthan: Agents of social and political awakening. Peasant, Tribal and Praja Mandal movements. Process of Integration: The constructive contribution of rulers of princely states, various phases of integration.

Performing Art of Rajasthan: Folk music, folk instruments and folk dances. Visual Art of Rajasthan: Schools of painting and architecture (temples, forts, palaces, Havelis and Baories (stepwells). Social Life in Rajasthan: Religious belief with reference to folk deities, fairs and festivals, customs and traditions, dresses and ornaments. Language and Literature of Rajasthan: Main dialects and related regions, famous authors of Rajasthani literature and their works.

Geography of Rajasthan:- Physiographic Regions, Rivers and Lakes. Climate, Natural Vegetation, Soil types, Major Minerals and Energy Resources – Renewable and Non-renewable. Population – Growth, distribution and density. Production and Distribution of Major Crops, Major Irrigation Projects, Major Industries. Drought and Famines, Desertification, Environmental Problems.

Economy of Rajasthan:- Characteristics of state economy. Agricultural Sector: Characteristics of agricultural sector in Rajasthan. Major Rabi and Kharif crops with special reference to oil seeds and spices. Irrigated area and trends. Health programmes of state government. Mid-Day Meal Programme. Indira Rasoi Yojna. Infrastructure Development: Progress in national highways, state highways and village roads. Power: Progress in power generation. Recent progress in solar power projects. Major items of exports from Rajasthan. Major welfare schemes of state government for economically and socially backward classes, disabled people, old-aged people. Steps taken for women empowerment and child development.

Contemporary Events:- Major Contemporary Events and Issues of Rajasthan. Persons and Places in News: International, national and the state. Sports and Games: International, national and the state.

## **PART-B**

Agro- climatic Zones of Rajasthan, weather forecasting and protective measures. Agro-climatology- elements and their effect on plant growth. Elements of crop production, common farming systems of Rajasthan. Tillage, soil erosion, soil and water conservation measures. Agro forestry and its role in soil and water conservation. Soil fertility and productivity. Soil organic matter, organic manures, bio-fertilizers, green manuring and fertilizers, Irrigation- irrigation scheduling and efficiency, pressurized irrigation systems, methods of irrigation, drainage. Concept, scope and problems of dry land agriculture. Major weeds of Rajasthan and their management. Organic farming. Seed testing, types of seed. Data collection, summarization and presentation.

Soil formation and profile development, basic ideas on soil survey and classification, soils of Rajasthan. Physical and Chemical properties of soils, management of saline, alkaline and acid soils. Essential plant nutrients: functions, deficiency and toxicity symptoms. Various methods to determine nutrient requirement of plants. Symbiotic and non- symbiotic nitrogen fixation.

Philosophy and principles of Extension Education, rural social institutions, rural leadership, teaching-learning process, audio-visual aids, teaching methods, programme planning and evaluation , communication process. Diffusion theory. History of extension programmes in India: CD, Panchayati Raj, HYVP, ATIC, IVLP, ATMA, NATP, NAIP, MGNREGA, PMRY, KVK, T&V system, student READY programme, ARYA, IDP. Agricultural development and poverty alleviation programmes. Farm planning and budgeting.

Survey instruments, bullock and tractor drawn implements and equipment, scope of farm mechanization in Rajasthan. Measurement of irrigation water, water lifting devices.

Ornamental Horticulture : Importance and scope of ornamental gardening and floriculture. Principles and elements of garden designing, types of garden, garden features and adornments. Landscaping and Gardening overview: Landscaping in various places and its value addition. Lawn and its importance in gardening, establishment and maintenance of Lawn. Road side plantation of Trees, Shrubs, Hedges, Annual flowers, Climbers & Creepers, Herbaceous Plants, Palms and their use in Gardening & their maintenance. Designing of rock garden, water garden and sunken garden. Flower arrangement, bonsai, topiary work. Protected cultivation, importance and its scope in Rajasthan.

Basic Horticulture: Importance and scope of Horticulture with special reference to Rajasthan. Site selection for establishment of orchards. Systems of planting and layout of orchard. Orchard soil management practices. Training and pruning of fruit trees, their principles, objectives and methods. Special horticultural practices like pinching, girdling, notching, ringing, bending, smudging, bahar treatment. Role of plant growth regulators in Horticulture. Use of Windbreaks and Shelter Belts. Hi-tech Horticulture in Rajasthan. Importance and scope of fruit and vegetables preservation. Principles and methods of fruit and vegetable preservation. Importance of Vertical farming, Hydroponics and Aeroponics.

Horticultural Crops : Ecophysiological requirement, varieties & hybrids, Horti-agro techniques, plant protection measures, cultivation practices, special problems & disorders, post harvest handling, packaging and storage of major fruits (Mango, Citrus, Guava, Ber, Papaya, Pomegranate, Aonla, Datepalm), Vegetables (Tomato, Potato, Chilli, Cauliflower, Carrot, Onion, Peas, Spinach, Muskmelon, Watermelon, Bittergourd, Bottlegourd and Okra), Flower (Annuals, Rose, Chrysanthemum, Marigold and Gladiolus) and other Horticultural Crops (Lemongrass, Isabgol, Cumin, Fenugreek, Aloe vera).

Plant Propagation and Nursery Management: Plant propagation: Basic concepts. Methods of asexual propagation-cuttage, layering, budding and grafting, rootstocks. Establishment of commercial nurseries. Propagation by specialised organs like suckers, rhizomes, corm, bulb, runner, stolon. Mist propagation, micropropagation, Tissue culture. Propagation media and containers.

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Pattern of Question Paper:

1. Objective Type Paper
2. Maximum Marks : 150
3. Number of Questions : 150
4. Duration of Paper : Three Hours
5. All Questions carry equal marks
6. Medium of Screening Test: Bilingual in English & Hindi
7. There will be Negative Marking

***(For every wrong answer, one-third of marks prescribed for that particular question will be deducted.)***