

# **RAJASTHAN PUBLIC SERVICE COMMISSION, AJMER**

## **SYLLABUS OF COMPETITIVE EXAMINATION FOR THE POST OF ASSISTANT AGRICULTURE OFFICER AGRICULTURE DEPARTMENT**

### **Part-A**

**- 40 Questions**

### **General Knowledge of Rajasthan**

#### **Unit-I: History, Culture & Heritage of Rajasthan -**

Pre & early history of Rajasthan. Age of Rajputs: Major dynasties of Rajasthan and the achievements of prominent rulers. Emergence of Modern Rajasthan: factors of socio-political awakening of 19<sup>th</sup> century; Peasants and tribal movements of 20<sup>th</sup> century; Political struggle of 20<sup>th</sup> century and the integration of Rajasthan.

Visual Art of Rajasthan - Architecture of forts and temples of Rajasthan; Sculpture traditions of Rajasthan and various schools of painting of Rajasthan.

Performing Arts of Rajasthan - Folk music and musical instruments of Rajasthan; folk dance and folk drama of Rajasthan.

Various religious cults, saints and folk deities of Rajasthan.

Various dialects and its distribution in Rajasthan; literature of Rajasthani language.

#### **Unit-II: Geography, Natural Resource & Socio-Economic Development of Rajasthan -**

Geography of Rajasthan: Broad physical features- Mountains, Plateaus, Plains & Desert; Major rivers and lakes; Climate and Agro-climatic regions; Major soil types and distribution; Major Forest types and distribution; Demographic characteristics; Desertification, Droughts & Floods, Deforestation, Environmental Pollution and Ecological Concerns.

Economy of Rajasthan: Major Minerals- Metallic & Non- Metallic; Power Resources- Renewable and Non-Renewable; Major agro based industries- Textile, Sugar, Paper & Vegetable oil; Poverty and Unemployment; Agro food parks.

#### **Unit-III: Current Events and Issues of Rajasthan and India -**

Important Persons, Places and Current events of the State. National and International events of importance. New Schemes & Initiatives taken recently for welfare & development in Rajasthan.

Agro-climatology-elements and effect on plant growth, weather abnormalities and protective measures. Elements of crop production, classification of crops, farming systems. Tillage, soil erosion, soil and water conservation. Soil productivity and fertility. Soil organic matter, fertilizers, their use and efficiency. Irrigation - role of water resources, quality of water and water pollution, water requirement of crops, methods of irrigation, drainage. Concept, scope and problems of dry land agriculture. Problem of weeds and control measures. Seed quality and certification. Agronomy of important crops like cereals, pulses, oilseeds, fibre crops, forage crops, sugarcane, sugarbeet, potato etc.

Objectives and methods of plant breeding. Mendel's laws of inheritance, heterosis mutations and gene concept. Seed testing, type of seeds, seed production, recommended varieties of important crops of Rajasthan.

Plant Growth Regulators. Management of abiotic stress and plant water relationship.

Nanoparticles and their importance in Agriculture.

Soil formation and profile development, basic ideas of soil survey and classification, soils of Rajasthan. Physical properties of soils, soil reaction, management of problematic soils, fixation of phosphorus, potassium and ammonium in soils. Essential plant nutrients and their functions, nutrient deficiency & toxicity symptoms, various tests to determine the nutrient requirement of plants. Symbiotic and non-symbiotic nitrogen fixation. Organic manures and bio-fertilizers, chemical composition of FYM, Vermicompost, night soil, oil cakes, bone meal, fish manure and common fertilizers.

Olericulture - Classification of vegetables, nursery, transplantation, seed testing and storage. Cultivation practices of cauliflower, cabbage, tomato, chillies, brinjal, carrot, radish, onion, pea, okra, muskmelon, watermelon and sweet potato. Importance of major seed species, medicinal and aromatic plants of Rajasthan. Hi-tech horticulture. Ornamental gardening, landscaping, Lawn and its maintenance, cultivation of roses, gladiolus, marigold. Pomology-layout of orchards, propagation methods, cultivation of mango, citrus, banana, guava, pomegranate, papaya, ber, phalsa, aonla, datepalm. Principles of fruits and vegetable preservation, dehydration, bottling, canning and packaging.

Importance of forestry, major species of forest trees and agro-forestry systems prevailing in Rajasthan.

Peculiarities of Indian agriculture, Importance of agriculture in national economy. Pattern of land utilization, size of holding, prices of agricultural commodities, agricultural marketing, functions & institutions, cost and price spread. Agricultural finance and credit, credit institutions, crop insurance. Farm planning and budgeting.

Philosophy and principles of extension education, rural social institutions, caste and family, rural leadership, teaching - learning process, audio-visual aids, teaching methods, programme planning and evaluation, communication process and diffusion

theory. History of extension programmes in India viz; CD, IRDP, Panchayati Raj, HYVP, ATIC, IVLP, ATMA, NATP, NAIP, DRDA, M-NREGA, PMRY, KVK, JRY, SGSY, T&V System, Student READY programme etc.

Importance of animal husbandry in rural economy. Care and management of newly born calf, heifers, raising calves from 0-6 months, breeding bull and a cow before & after parturition. Common infectious & contagious diseases of livestock their prevention & control. Computation of balanced ration. Important Indian & exotic breeds of cow, buffalo, sheep, goat, camel & poultry. Housing of cattle and poultry. Forage conservation.

Common workshop tools, survey instruments, bullock drawn implements. Scope of farm mechanization in Rajasthan. Tools & implements for land preparation and leveling. Measurement of irrigation water, water lifting devices.

Data collection, summarization and presentation, measures of central tendency, measures of dispersion, Karl Pearson's coefficient of correlation. Experimental designs.

Major diseases (fungal, bacterial, nematode & viral) and insect pests of field, vegetable, fruit, ornamental and seed spice crops of Rajasthan and their control measures including biological methods & integrated pest management. Beneficial insects.

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<b>Scheme of the examination</b>				
<b>S. No.</b>	<b>Subject</b>	<b>No. of Questions</b>	<b>Total Marks</b>	<b>Examination Duration</b>
Part-A	<b>General Knowledge of Rajasthan</b>	40	40	<b>2.30 Hours</b>
Part-B	<b>Concerned Subject (as prescribed in qualification)</b>	110	110	
	<b>Total</b>	<b>150</b>	<b>150</b>	

1. The competitive examination shall carry 150 marks and 150 questions of Multiple Choice Type questions.  
 2. There shall be one paper. Duration of Paper will be Two hours and Thirty Minutes.  
 Negative marking shall be applicable in the evaluation of answers. For every wrong answer one-third of the marks prescribed for that particular question shall be deducted.  
 Explanation: - Wrong answer shall mean an incorrect answer or multiple answers.  
उक्त पद हेतु आयोजित की जाने वाली परीक्षा के लिए ओ.एम.आर. उत्तरपत्रक में प्रश्नों के विकल्प भरने के संबंध में विशेष निर्देश:-

1. Each question has five options marked as 1, 2, 3, 4, 5. You have to darken only one circle (bubble) indicating the correct answer on the Answer Sheet using BLUE BALL POINT PEN.
2. It is mandatory to fill one option for each question.
3. If you are not attempting a question then you have to darken the circle '5'. If none of the five circles is darkened, one third (1/3) part of the marks of question shall be deducted.
4. After solving question paper, candidate must ascertain that he/she has darkened one of the circles (bubbles) for each of the questions. Extra time of 10 minutes beyond scheduled time, is provided for this.

A candidate who has not darkened any of the five circles in more than 10% questions shall be disqualified.