

RAJASTHAN PUBLIC SERVICE COMMISSION, AJMER

SYLLABUS FOR SCREENING TEST FOR THE POST OF BOTANIST (PHARMACY) (AYURVEDA DEPARTMENT)

DUTIES OF BOTANIST:

- Identifying, Classifying, Recording and Monitoring Plant Species.
- Ecological Consultancy Work, including Surveys and Environmental Impact Assessments.
- Managing a Botanical Collection.
- Searching for New Species.
- Studying the Effects of Pollution, or Developments such as New Buildings on Plant Life.
- Identifying and Purifying Chemicals Produced by Plants for Use in Products such as Drugs, Food, Fabrics, Solvents and Building Materials.
- Presenting Research Results in Journals, Books and at Academic Conferences.
- Training and Supervising Junior Staff and Volunteers.
- Teaching to staff.

1. Pharmaceutical Biology and Pharmacognosy: Scope and significance of biology in pharmaceutical sciences. Methods of classification of plants.

Studies of traditional drugs, common, botanical sources, morphology, chemical nature of chief constituents, pharmacology, categories and common uses of indigenous drugs– Amla, Kantakari, Satavari, Tylophora, Bhilwa, Arjuna, Kalijiri, Rasna, Unarnava, Chirata, Apmarg, Gokhru, Shankapushpi, Brahmi, Methi, Lahsun, Palash, Guggal, Gymnema, Shilajit and Neem.

Systematic study of source, cultivation, collection, processing, chemical constituents, adulterants, uses, diagnostics, macroscopic and microscopic features and specific chemical tests of the following alkaloids containing drugs: Pyridine & Piperidine, Tropane, Quinoline & Isoquinoline, Indole, Imidazole, steroidal, Alkaloidal amines, Glycoalkaloid, Purines.

2. Pharmaceutics: Pharmaceutical Calculations, Posology, Powders, Solutions, Aromatic Waters, Mixtures, Emulsions, Lotions, Liniments, Paints, Lozenges, Jellies, Pastes, Suppositories, Tablet, Capsules, Emulsions, Suspensions, Ointment, Suppositories, Creams, Pastes, Ophthalmic Preparations, Suppositories, Sterile Products.

Cosmetics. Novel drug delivery systems.

3. Pharmacology: Drugs acting on autonomic nervous system, Autocoids and their antagonists, Cardio Vascular drugs, Drugs acting on respiratory tract, Drugs acting on endocrine system.

Bioassay.

Pharmacology of the following groups of drugs – Drugs acting on central nervous system, Local anesthetics, Drugs acting on uterus, Drugs affecting renal function: Diuretics & anti-diuretics, Drugs acting on the blood & blood forming organs, Pharmacology of vitamins , Heavy metals & Heavy metal antagonists, Enzyme in therapy, Therapeutic gases, Drugs acting on skin.

4. Pharmaceutical Jurisprudence: Pharmacy Act 1948, Drugs & Cosmetics Act 1940, Medicinal Toilet Preparations (Excise Duties) Act and Rules, Narcotic Drugs & Psychotropic Substances Act, Drugs & Magic Remedies (Objectionable Advertisements) Act, Drug Prices Control Order, AICTE Act, Patents Act, Trade & Merchandise Marks Act, States Shops & Establishments Act, Minimum Wages Act, Factories Act, Prevention of Food Adulteration Act & Rules, Prevention of, Cruelty to Animals Act, Medical Termination of Pregnancy Act, The Poisons Act.

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Pattern of Question Papers:

1. Objective Type Paper
2. Maximum Marks : 100
3. Number of Questions : 100
4. Duration of Paper : Two Hours
5. All Questions carry equal marks
6. There will be Negative Marking
- 7.

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