

Stage- I (Objective Type Multiple Choice Questions) 200 Marks:

The test will comprise of one Common Paper for all candidates and 13 different Technical Papers for the various posts.

COMMON PAPER				
Sections	Number of Questions	Marks per question	Total marks	Duration
a) General Awareness	10	2.5	25	1 hour
b) General Intelligence and Reasoning Ability	10	2.5	25	
c) Arithmetical Ability	10	2.5	25	
d) Test of English Language and Comprehension	10	2.5	25	
Sub-Total			100	
TECHNICAL PAPER				
Various Technical Papers	50	2	100	1 hour
Total			200	2 hours

SYLLABUS:**(a) General Awareness – 25 marks (10 questions of 2.5 marks each)**

Questions in this section will test the candidate's General Awareness of the environment around him/her and its application to society. The questions will be designed to test knowledge of Current Events and of such matter of everyday observation as may be expected of an educated person. The test will also include questions relating to History, Polity, Constitution, Sports, Art & Culture, Geography, Economics, Everyday Science, Scientific Research, National/International Organizations/Institutions, etc. State Specific questions may also be asked.

(b) General Intelligence & Reasoning Ability - 25 marks (10 questions of 2.5 marks each)

The syllabus of General Intelligence & Reasoning Ability includes questions of both verbal and non- verbal types. Test may include questions on analogies, similarities, differences, space visualization, problem solving, analysis, judgment, decision making, visual memory, discrimination, observation, relationship concepts, arithmetical reasoning, verbal and figure classification, arithmetical number series, etc. The test will also include questions designed to test the candidate's abilities to deal with abstract ideas and symbols and their relationship, arithmetical computation and other analytical functions.

(c) Arithmetical Ability – 25 marks (10 questions of 2.5 marks each)

The test of Arithmetical and Numerical Abilities will cover Number Systems including questions on Simplification, Decimals, Data Interpretation, Fractions, L.C.M, H.C.F, Ratio & Proportion, Percentage, Average, Profit & Loss, Discount, Simple & Compound Interest, Mensuration, Time & Work, Time & Distance, Tables & Graphs.

(d) Test of English Language and Comprehension – 25 marks (10 questions of 2.5 marks each)

Questions in this component will test the candidate's understanding and knowledge of English

PAPER 10: PHARMACIST (ALLOPATHY) (42/25)

- **Pharmaceutics:**

Pharmacopoeia, Packaging materials, Pharmaceutical aids, Preservatives, Unit operations, Size reduction, Tablets, Capsules, Liquid oral preparations, Topical preparations, Powders and granules, Sterile formulations, Immunological products, Basic structure, layout, sections, and activities of pharmaceutical manufacturing plants Quality control and quality assurance, Novel drug delivery systems.

- **Pharmaceutical Chemistry:**

Introduction to Pharmaceutical chemistry, Sources and types of errors, Impurities in Pharmaceuticals, Volumetric analysis, Gravimetric analysis, Inorganic Pharmaceuticals- Haematinics, Gastro-intestinal Agents, Topical agents, Dental products, Medicinal gases, Drugs Acting on Central Nervous System, Drugs Acting on Autonomic Nervous System, Drugs Acting on Cardiovascular System, Diuretics, Hypoglycemic Agents, Analgesic And Anti-Inflammatory Agents, Anti-Infective Agents, Antibiotics, Anti-Neoplastic Agents

- **Pharmacognosy:**

Definition, history, present status and scope of Pharmacognosy, Classification of drugs, Quality control of crude drugs, biological source, chemical constituents and therapeutic efficacy of the following categories of crude drugs, Plant fibres used as surgical dressings, Basic principles involved in the traditional systems of medicine, Herbs as health food, Herbal cosmetics, Phytochemical investigation of drugs.

- **Human Anatomy & Physiology:**

Scope of Anatomy and Physiology Definition of various terminologies, Structure of Cell, Tissues of the human body, Osseous system, Haemopoietic system, Lymphatic system, Cardiovascular system, Respiratory system, Digestive system, Skeletal muscles, Nervous system, Sense organs, Urinary system, Endocrine system (Hormones and their functions), Reproductive system.

- **Social Pharmacy:**

Introduction to Social Pharmacy, Preventive healthcare, Nutrition and Health, Introduction to Microbiology and common microorganisms, Epidemiology, Causative agents, epidemiology and clinical presentations and Role of Pharmacists in educating the public in prevention of the following communicable diseases, Introduction to health systems and all ongoing National Health programs in India, their objectives, functioning, outcome, and the role of pharmacists, Pharmacoeconomics – Introduction, basic terminologies, importance of pharmacoeconomics.

- **Pharmacology:**

General Pharmacology, Drugs Acting on the Peripheral Nervous System, Drugs Acting on the Eye, Drugs Acting on the Central Nervous System, Drugs Acting on the Cardiovascular System, Drugs Acting on Blood and Blood Forming Organs, Drugs Acting on the Gastro Intestinal Tract, Drugs Acting on the Kidney, Hormones and Hormone Antagonists, Autocoids, Chemotherapeutic Agents, Biologicals.

- **Community Pharmacy & Management:**

Community Pharmacy Practice, Professional responsibilities of community pharmacists Introduction to the concept of Good Pharmacy Practice and SOPs, Prescription and prescription handling, Communication skills, Patient counseling, Medication Adherence, Health Screening Services in Community Pharmacy, Over The Counter (OTC) Medications, Community Pharmacy Management

- **Biochemistry & Clinical Pathology:**

Introduction to biochemistry, Carbohydrates, Proteins, Lipids, Nucleic acids, Enzymes, Vitamins, Metabolism, Minerals, Water and Electrolytes, Introduction to Biotechnology, Organ function tests, Introduction to Pathology of Blood and Urine.

- **Pharmacotherapeutics:**

Introduction, scope, and objectives. Rational use of Medicines, Evidence Based Medicine, Essential Medicines List, Standard Treatment Guidelines (STGs), Definition, etiopathogenesis, clinical manifestations, nonpharmacological and pharmacological management of the diseases.

- **Hospital & Clinical Pharmacy:**

Hospital Pharmacy Definition, scope, national and international scenario, Organisational structure, Professional responsibilities, Qualification and experience, requirements, job specifications, work load requirements and inter professional relationships, Good Pharmacy Practice (GPP) in hospital, Hospital Pharmacy Standards (FIP Basel Statements, AHSP) Introduction to NAQS guidelines and NABH Accreditation and Role of Pharmacists, Different Committees in the Hospital, Supply Chain and Inventory Control, Drug distribution, Compounding in Hospitals. Bulk compounding, IV admixture services and incompatibilities, Total parenteral nutrition, Radio Pharmaceuticals, Application of computers in Hospital Pharmacy Practice, Electronic health records, Softwares used in hospital pharmacy, Clinical Pharmacy: Definition, scope, and development - in India and other countries, Technical definitions, common terminologies used in clinical settings and their significance such as Paediatrics, Geriatric, Anti-natal Care, Post-natal Care, etc., Daily activities of clinical pharmacists, Pharmaceutical care, Medication Therapy Management, Home Medication Review, Clinical laboratory tests used in the evaluation of disease states, Poisoning, Pharmacovigilance, Medication errors, Drug Interactions.

Pharmacy Law & Ethics:

General Principles of Law, History and various Acts related to Drugs and Pharmacy profession, Pharmacy Act-1948 and Rules, Pharmacy Practice Regulations 2015, Drugs and Cosmetics Act 1940 and Rules 1945 and New Amendments, Manufacture of drugs, Study of schedule C and C1, G, H, H1, K, P, M, N, and X, Sale of Drugs, Administration of the Act and Rules, Narcotic Drugs and Psychotropic Substances Act 1985 and Rules, Drugs and Magic Remedies (Objectionable Advertisements) Act 1954, Drugs and Magic Remedies (Objectionable Advertisements) Act 1954, Poisons Act-1919, FSSAI (Food Safety and Standards Authority of India) Act and Rules, National Pharmaceutical Pricing Authority, Code of Pharmaceutical Ethics, Role of all the government pharma regulator bodies – Central Drugs Standards Control Organization (CDSCO), Indian Pharmacopoeia Commission (IPC), Good Regulatory practices (documentation, licenses, renewals, e-governance), Introduction to BCS system of classification, Basic concepts of Clinical Trials, ANDA, NDA, New Drug development, New Drugs and Clinical Trials Rules, 2019. Brand v/s Generic, Trade name concept, Introduction to Patent Law and Intellectual Property Rights, Emergency Use Authorization, Blood bank – basic requirements and functions, Clinical Establishment Act and Rules, Biomedical Waste Management Rules 2016, Bioethics - Basic concepts, history and principles. Brief overview of ICMR's National Ethical Guidelines for Biomedical and Health Research involving human participants, Consumer Protection Act, Disaster Management Act, Medical Devices – Categorization, basic aspects related to manufacture and sale.