Pharmaceutics	
Introduction to Physical pharmacy	▪ Matter, Properties of Matter ▪ Micromere tics and Powder Rheology ▪ Surface and Interfacial Phenomenon ▪ Viscosity and Rheology ▪ Dispersion Systems ▪ Complexation ▪ Kinetics and Drug Stability
Importance of microbiology in pharmacy	▪ Identification of Microbes ▪ Control of microbes by physical and chemical methods ▪ Sterilization ▪ Immunology and Immunological Preparations ▪ Genetic Recombination ▪ Antibiotics
Introduction to pharmaceutical jurisprudence & ethics	▪ Pharmaceutical Legislations ▪ Pharmaceutical Ethics ▪ A brief study of the various Acts with special reference to the main provisions and the latest amendments
Introduction to dispensing and community pharmacy	▪ Principles involved and procedures adopted in dispensing of ▪ Incompatibilities ▪ Community Pharmacy ▪ Organization and Structure of hospital pharmacy ▪ Hospital Formulary ▪ Drug Store Management and Inventory Control ▪ Drug distribution Systems in Hospitals ▪ Central Sterile Supply Unit and their Management ▪ Manufacture of Sterile and Non-sterile Products ▪ Drug Information Services ▪ Records and Reports

	▪ Nuclear Pharmacy
Importance of unit operations in manufacturing, Stoichiometry	▪ Unit processes ▪ Fluid Flow ▪ Heat transfer ▪ Evaporation ▪ Distillation ▪ Drying ▪ Size Reduction ▪ Mixing ▪ Filtration and Centrifugation ▪ Crystallization ▪ Dehumidification and Humidity Control ▪ Refrigeration and Air Conditioning ▪ Material of Construction ▪ Material Handling Systems ▪ Corrosion ▪ Plant location ▪ Industrial Hazards and Safety Precautions ▪ Automated Process Control Systems
Dosages Forms, designing & evaluation	▪ Liquid Dosages Forms ▪ Semisolid Dosage Forms ▪ Suppositories ▪ Extraction and Galenical Products ▪ Blood Products and Plasma Substitutes ▪ Pharmaceutical Aerosols ▪ Ophthalmic Preparations ▪ Cosmetic logy and Cosmetic Preparations ▪ Micro-encapsulation ▪ Parenteral Products ▪ Surgical products ▪ Packaging of Pharmaceutical Products ▪ Designing of dosage forms ▪ Performance evaluation methods
Biopharmaceutics &	▪ Introduction to Biopharmaceutics

Pharmacokinetics	▪ Pharmacokinetics ▪ Clinical Pharmacokinetics ▪ Bioavailability and bioequivalence

Pharmaceutical Chemistry	
Inorganic pharmaceutical & medicinal chemistry	▪ Importance of inorganic compounds in pharmacy and medicine ▪ Gastrointestinal Agents ▪ Major Intra- and Extra-cellular Electrolytes ▪ Essential and Trace Elements ▪ Topical Agents ▪ Gases and Vapors ▪ Dental Products ▪ Miscellaneous Agents ▪ Acids, Bases and Buffers

Pharmacology	▪ Immunopathophysiology ▪ Pathophysiology of Common Diseases ▪ Fundamentals of general pharmacology ▪ Basic Concepts of Pharmacotherapy

Pharmacognosy	
Sources of Drugs	▪ CARBOHYDRATES ▪ TANNINS ▪ VOLATILE OILS ▪ FIBERS ▪ Glycoside Containing Drugs ▪ Alkaloid Containing Drugs
General Techniques of Biosynthetic	▪ Terpenes

Studies and Basic Metabolic Pathways/Biogenesis	▪ Glycosides ▪ Alkaloids ▪ Role of plant-based drugs on National economy ▪ Applications of plant tissue culture in pharmacognosy. Marine pharmacognosy

GPAT Exam Pattern

Paper	Only one
Exam Duration	03 hrs
No. of Questions	125
Total Marks	500
Type of examination	Objective-Type (MCQ)
Process	Online
Negative Marking	1/4 (one-fourth) mark