



Syllabus for Written Examination

(For Special Internal Competition)

Post: **Pharmaceutical Laboratory Assistant**

Subject: **Pharmaceutical lab**

1. **Theoretical knowledge of basic Sciences (Chemistry, Microbiology, Anatomy and Physiology, and Bio- chemistry) and core Pharmaceutical Subjects (Pharmaceutics, Pharmacognosy, Pharmaceutical Analysis, Medicinal Chemistry, Pharmacology, Therapeutics, Community Pharmacy, and Clinical Pharmacy) which are generally included in the concerned bachelor level courses** (50%)
2. **Fundamental knowledge of Pharmaceutical Laboratories Practice** (50%)
 - (a) Basic concept of Laboratory safety measures, Rules, Regulations, and Chemical hazards
 - (b) Methods of Preparation of essential laboratory reagents and samples.
 - (c) Labeling, storage, and disposal of organic chemicals, reagents, and waste materials.
 - (d) Methods and significance of Procurement, Inventory management, and control of glass wares, chemicals, and equipment.
 - (e) Crude drugs collection and storage, and Herbarium preparation.
 - (f) Methods of handling biological samples, microorganisms, and laboratory animals.
 - (g) Theory, instrumentation, and working principle of pharmaceutical laboratory instruments like Distillation plant, pH meter, Viscometer, Calorimeter, UV Spectrophotometer, HPLC, Dissolution apparatus, Disintegration apparatus, Friability apparatus, Hardness tester, Vernier caliper, Vacuum-pump rotary evaporator, Incubator, Hot air ovens, Autoclaves, Weighing balance, Sonicator, Centrifuge, Soxhlet apparatus, TLC, Column Chromatography, Analgesimeter, Rota Rod Apparatus, etc.
 - (h) Process of Calibration, Validation, and Designing Standard Operating Procedure (SOP) of necessary lab instruments.
 - (i) Principles of Good Manufacturing Practice (GMP) and Good Laboratory Practice (GLP).
 - (j) Preparation of datasheet and lab recording.