

Pokhara University Teaching Hospital
Curriculum for the Pharmacy Officer Level Examination

For Written Examination
Full Marks: 65

There shall be 4 hrs. written examination based on the following syllabus.

Group A: Written Examination

65 Marks

Section: I (20)

- 1. History of Pharmacy and Drug Legislation in Nepal:** Pharmaceutical development in Nepal, Pharmaceutical institution in Nepal, National Health Policy, National Drug Policy, Drug Legislation in Nepal, Drug Act 2035, Drugs Registration Rules, 2038 (1981), Drugs Advisory Council and Drugs Advisory Committee Formation Rules, 2037(1970), Drug Investigation and Inspection Rules 2040, Drug Standard Regulation 2043, Nepal Health Service Act 2053, Nepal Health Service Regulation 2055, Narcotic Drugs Control Act 2033, Sarvajnik Kharid Ain 2063, Pharmacy Council Act, 2057, Roles and Responsibility of Nepal Pharmacy Council, and Hospital Pharmacy Service Guidelines 2072.
- 2. Pharmaceutical Analysis:** Fundamental titrimetric analysis, Spectroscopic method of analysis, Gravimetric analytical methods and their applications, Separation techniques and instrumentation, Extraction methods, Good Laboratory Practices, Validation and Reference Standards, Statistical Analysis, Sampling techniques and Analysis of variance.

Section: II (10)

- 1. Pharmaceutics:** Fundamentals of Pharmaceutics (Drugs, Dosage form, Drug discovery, Drug manufacturing) Pharmaceutical Processing (Mixing, Milling, Drying, Compression, Filtration), Packaging, Quality Assurance, Evaluation and Regulations, Industrial hazards, plant safety and Safety guidelines, Pharmacopoeial Standards and their Importance and Applications, Principles of Biopharmaceutics and Pharmacokinetics (ADME, Reaction rate and order, Pharmacokinetics models), Bioavailability and Bioequivalence

2. **Microbiology and Immunology:** Scope of Microbiology with Special Reference to Pharmaceutical Sciences, Basic Principles of Sterility and Pyrogen Testing; Microbial contamination test in Pharmaceuticals, Food, Water and Environment; Methodology of Sterilization; Fundamental of Immunology, Testing of Vaccines Used in Extended Program of Immunization; Basic Principles of Biotechnology
3. **Pharmacognosy:** Medicinal herbs of Nepal: Origin, Distribution, Cultivation, Drying, Pulverization, Storage and Quality Control. Plant based Drugs in Modern Medicine. Extraction Process and Isolation of Active Ingredients, Pilot Plant Processing.

Section: III (10)

1. **Pharmacology:** Pharmacokinetics and Pharmacodynamics, Mechanism of Action of drugs, their Safety, Uses and Mode of Administration, Pharmacotherapeutics, Poisoning: Control and Treatment, Adverse drug Reaction and Drug Interactions
2. **Medicinal Chemistry:** Characterization of Organic Compounds of Pharmaceutical Interest and Specific Reactions, Synthesis of Important Pharmaceuticals, their Pharmacological Action and Antimicrobial activities.

Section: IV (25)

1. **Drug Supply Management and Clinical Pharmacy Services:** Role of Pharmacist in Hospital and Community, Drug & Therapeutics Committee, Logistics Management (selection, procurement, storage and distribution), Drug Disposal System, Drug Financing Schemes (cost recovery, sharing and insurance), Good Pharmacy Practice (GPP), Concept of Essential Drugs, National Formulary, Hospital Formulary, Standard Treatment Schedules and Rational Use of Drugs, Clinical Pharmacy Services; Patient Counseling and Dosage Adjustment in Elderly, Impaired Liver and Kidney; Use of Drug in Neonates, Children, Pregnancy and Lactation, Clinical Management of ADRs, ADR Reporting, Medication Error and Adherence, Pharmacovigilance, Basic Principles of Pharmacoeconomics and Pharmaceutical Management.

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For Practical Examination
Full Marks: 35

Syllabus for the post of Pharmacy Officer
Group B: Practical Examination

35 Marks

- 1. Drug Distribution System in Hospital**
- 2. Inventory Management**
- 3. Hospital Formulary Management**
- 4. Prescription and its components**
- 5. Patient Counselling**
- 6. Medication Error and Adherence**
- 7. ADR Reporting**
- 8. Case studies**
