#### लोक सेवा आयोग

## नेपाल स्वास्थ्य सेवा, फार्मेसी समूह, नवौं (९) तहको खुला र आन्तरिक प्रतियोगितात्मक परीक्षाको पाठ्यक्रम

### Paper II: Technical Subject

- 1. Introduction
  - 1.1. Development of pharmacy profession and institutions in Nepal
  - 1.2. Implementation of essential drug concept and standard treatment schedules in the context of open market policy
  - 1.3. Present status of Pharmacy Human Resources
- 2. Pharmaceutical processing and processes
  - 2.1. Modern drug delivery systems
  - 2.2. Stability of pharmaceutical formulation with special reference to additives
  - 2.3. Pharmaceutical biotechnology
- 3. Total quality management (TQM) and quality assurance (QA)
  - 3.1. Philosophy of TQM with special reference to pharmaceutical industries
  - 3.2. Quality assurance in pharmaceutical industries
- 4. Good Manufacturing Practice as recommended by World Health Organization (WHO-GMP)
  - 4.1. Philosophy and essential elements
  - 4.2. Good practices in production and quality control
  - 4.3. Production of sterile, biological and herbal drugs
  - 4.4. Production of active pharmaceutical ingredients
  - 4.5. Role of Inspector in GMP inspection
  - 4.6. Comparison of WHO-GMP with Codes on Manufacturing of Drugs
- 5. Role of pharmacists in healthcare system
  - 5.1. Pharmaceutical care and clinical pharmacy
  - 5.2. Community pharmacy
  - 5.3. Drug information
- 6. Drug Supply management and rational use of drugs
  - 6.1. Selection, quantification, procurement, storage and distribution
  - 6.2. Drug financing scheme/ community drug programme
  - 6.3. Health insurance
  - 6.4. National and hospital formularies, drug and therapeutic committee
  - 6.5. Status of antibiotic use and Antimicrobial Resistance
  - 6.6. Role of dispensers in rational use of drugs
- 7. Quality control of drugs
  - 7.1. Specifications
  - 7.2. Pharmacopoeia
  - 7.3. Quality parameters of pharmaceutical products and raw materials
  - 7.4. Laboratory quality management systems
  - 7.5. Accreditation and proficiency testing

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- 7.6. Reference standards
- 7.7. Quality control of biological products

### 8. Drug regulation

- 8.1. Assuring availability of drugs
- 8.2. Implementation of drug policy in relation to Drug Act
- 8.3. Regulatory measures to overcome evolving drug use problems including narcotic/psychotropic drugs.
- 8.4. Price control mechanisms
- 8.5. Strategies for regulating traditional and herbal drugs.
- 8.6. Pharmacoepedemiology & Pharmacovigilance.
- 8.7. Clinical trial and role of Nepal Health Research Council (NHRC)