सूर्यवनियायक नगरपालिका

स्वास्थ्य सेवा, फार्मेसी समूह, सातौँ तह, फार्मेसिस्ट पदको प्रतियोगितात्मक परीक्षाको पाठयक्रम

पाठयक्रमको रुपरेखा :– यस पाठयक्रमको आधारमा निम्नानुसार चरणमा परीक्षा लिइने छ :

प्रथम चरण :– लिखित परीक्षा पूर्णाङ्क :– १००

द्वितीय चरण :– अन्तर्वार्ता पूर्णाङ्क :– २०

प्रथम चरण – लिखित परीक्षा योजना (Written Examination Scheme)

पत्र/विषय	पूर्णाङ्क	उत्तीर्णाङ्क	परीक्षा प्रणाली	प्रश्न संख्या **X** अङ्कभार	समय
सेवा सम्बन्धी	१००	४०	वस्तुगत बहुवैकल्पिक (Multiple Choice)	५० प्रश्न X २अङ्क = १००	४५ मिनेट

द्वितीय चरण

विषय	पूर्णाङ्क	परीक्षा प्रणाली
अन्तर्वार्ता	२०	मौखिक

द्रष्टव्य :

१. यो पाठयक्रम योजनालाई प्रथम चरण (लिखित परीक्षा) तथा द्वितीय चरण (अन्तर्वार्ता) गरी दुई भागमा विभाजन गरिएको छ ।

२. प्रश्नपत्र अंग्रेजी भाषामा हुनेछ ।

३. लिखित परीक्षाको माध्यम भाषा नेपाली वा अंग्रेजी अथवा नेपाली र अंग्रेजी दुवै हुनेछ ।

४. वस्तुगत बहुवैकल्पिक (Multiple Choice) प्रश्नहरुको गलत उत्तर दिएमा प्रत्येक गलत उत्तर बापत अङ्क कट्टा गरिने छैन ।

५. परीक्षामा कुनै प्रकारको क्याल्कुलेटर (Calculator) प्रयोग गर्न पाइने छैन ।

६. परीक्षामा यथासम्भव सबै इकाईबाट प्रश्न सोधिने छ ।

७. नगरपालकिाबाट संचालन हुने परीक्षामा परीक्षार्थीले मोबाइल वा यस्तै प्रकारका विद्युतीय उपकरण परीक्षा हलमा लैजान पाइने छैन ।

८. यस पाठयक्रम योजना अन्तर्गतका पत्र/विषयका विषयवस्तुमा जेसुकै लेखिएको भए तापनि पाठयक्रममा परेका कानून, ऐन, नियम तथा नीतिहरु परीक्षाका मिति भन्दा ३ महिना अगाडि (संशोधन भएको वा संशोधन भई हटाईएको वा थप गरी संशोधन भई) कायम रहेकालाई यस पाठ्यक्रममा परेको सम्झनु पर्दछ।

९. लिखित परीक्षामा छनौट भएका उम्मेदवारहरुलाई मात्र अन्तर्वार्तामा सम्मिलित गराइनेछ ।

१०. लिखित परीक्षा र अन्तर्वार्ताको कुल अङ्क योगका आधारमा अन्तिम परीक्षाफल प्रकाशित गरिनेछ ।

विषय :– फार्मेसी

1. Development of Pharmacy and Drug Legislation in Nepal.

1.1. Pharmaceutical development in Nepal.

1.2. Pharmaceutical institution in Nepal.

1.3. Drug legislation in Nepal.

1.4. National Health Policy, National Drug Policy and their relation.

1.5. Role and Responsibility of Nepal Pharmacy Council

4. Pharmaceutical analysis

4.1 Fundamental titrametric analysis: Acid-base, Oxidation-reduction, Non-aqueous, Complexometric and potentiometric titrations; Ion selective electrodes.

4.2 Spectroscopic methods of analysis, Absorption, Visible, IR, UV spectroscopy, Fluorimetry, Polarimerty, Atomic absorption and Emission spectroscopy.

4.3 Gravimetric analytical methods and their applications.

4.4 Separation techniques: Column, Paper, Thin layer, Ion exchange, Gel and Gas chromatography; High Performance Liquid Chromatography, High Performance Thin Layer Chromatography, Electrophoreses.

4.5 Extraction procedures and role of partition coefficient.

4.6 Principles and application of microbiological assay of antibiotics and vitamins.

4.7 Good Laboratory Practices, validation, references standards.

4.8 Statistical analysis, sampling technique, analysis of variance.

2. Pharmaceutics

2.1. Prescription, proper handling of prescription, incompatibilities.

2.2. Pharmaceutical dosage form: Fast, Immediate, Sustained/controlled release including novel drug delivery system. e.g. mucosal drug delivery systems.

2.3. Manufacturing; Elements of Good Manufacturing Practice; WHO Certification Scheme on the Quality of Pharmaceutical Products Moving in International Commerce and its usefulness for quality assurance; packaging and stability of pharmaceutical products, costing of pharmaceutical formulation and prediction of maximum retail price.

2.4. Pharmaceutical additives.

2.5. Lay out plan of pharmaceutical manufacturing plant including quality control, good manufacturing practice and safety measures in factories.

2.6. Physical pharmacy; application of thermodynamics; rate and order of reaction; accelerated stability testing and shelf-life of drugs; pH; buffered and isotonic solution; solution of electrolytes; micromeritics; colloidal system; theology.

2.7. Bioavailaility and Bioequivalence studies.

6. Microbiology

6.1 Scope of microbiology with special reference to pharmaceutical sciences, basic principles of sterility and pyrogen testing, **fundamental of Immunology**, Testing of vaccines used in Extended Programme of Immunization.

6.2 Microbial contamination test in pharmaceuticals, food, water and environment; classification of pathogenic microorganisms.

6.3 Basic principles of Biotechnology.

6.4 Methodology of sterilization.

3. Pharmacognosy

3.1 Medicinal herbs of Nepal: Origin, distribution, cultivation, drying, pulverization, storage, and quality control.

3.2 Plant analysis, types of plant constituents and physico-chemical standards.

3.3 Plant based drugs in modern medicine.

3.4 Extraction process and isolation of active ingredients, pilot plant processing.

5. Pharmacology

5.1 Mechanism and action of drugs, their safety, uses and mode of administration.

5.2 Pharmacokinetics, pharmacodynamics and pharmacological evaluation of drugs.

5.3 Poisoning: control and treatment.

5.4 Adverse drug reaction and drug interactions.

7. Medicinal Chemistry

7.1 Characterization of organic compounds of pharmaceutical interest and specific reactions.

7.2 Synthesis of important pharmaceuticals, their pharmacological action and anti- microbial activities.

8. Drug Act & Pharmacopoeia

8.1 Legislation

8.1.1 औषधि ऐन, २०३५

8.1.2 औषधि दर्ता नियमावली, २०३८

8.1.3 औषधि परामर्श परिषद र औषधि सल्लाहकार समिति गठन नियमावली, २०३७

8.1.4 औषधि जांचबूझ तथा निरीक्षण नियमावली, २०४०

8.1.5 औषधि स्तर नियमावली, २०४३

8.1.6 औषधि उत्पादन संहिता, २०४१

8.1.7 लागु औषध (नियन्त्रण) ऐन, २०३३

8.2 Pharmacopoeia; Pharmacopoeial standards and their needs; importance and application of pharmacopoeial specification.

9. Pharmaceutical Care & Drug Supply Management

9.1 Comprehensive knowledge of **clinical** and hospital pharmacy; patient counseling and dosage adjustment in elderly, impaired liver and kidney; use of drug in neonates, children, pregnancy and lactation.

9.2 Logistics management (selection, procurement, storage and distribution).

9.3 Drug Financing Schemes (cost recovery, sharing and insurance).

9.4 Concept of Essential Drugs, National Formulary, Hospital Formulary and Drug & Therapeutics Committee.

9.5 Standard Treatment Schedules and rational use of drugs.

9.6 Role of Pharmacist in hospital and community.