प्रदेश लोक सेवा आयोग

बागमती प्रदेश

मदन भण्डारी स्वास्थ्य विज्ञान प्रतिष्ठानको पाँचौं तहको स्वास्थ्य सेवा, प्राज्ञिक समूह, ल्याब सहायक पदको प्रतियोगितात्मक परीक्षाको पाठ्यक्रम

पाठ्यक्रमको रूपरेखा:- मदन भण्डारी स्वास्थ्य विज्ञान प्रतिष्ठानको लागि यस पाठ्यक्रमको आधारमा निम्नानुसार चरणमा परीक्षा लिइने छः

प्रथम चरणः- लिखित परीक्षा — पूर्णाङ्कः-१००

द्वितिय चरणः- अन्तर्वार्ता — उत्तीर्णाङ्कः-२०

प्रथम चरण - लिखित परीक्षा योजना (Written Examination Scheme)

पत्र/विषय	पूर्णाङ्क	उत्तीर्णाङ्क	परीक्षा प्रणाली	प्रश्न संख्याXअङ्कभार	समय
सेवा सम्बन्धी	१००	४०	वस्तुगत बहुवैकल्पिक (Multiple Choice)	५०प्रश्नX२अङ्क=१००	४५ मिनेट

द्वितिय चरण-

विषय	पूर्णाङ्क	परीक्षा प्रणाली
अन्तर्वार्ता	२०	मौखिक

द्रष्टव्य

१. लिखित परीक्षामा यथासम्भव पाठ्यक्रमका सबै एकाईबाट प्रश्नहरु सोधिनेछ ।

पाठ्यक्रमका एकाइ	१	२	३	४	५	६	७	८
प्रश्न सङ्ख्या	१०	१०	९	६	९	२	२	२

२. वस्तुगत बहुवैकल्पिक प्रश्नहरुको गलत उत्तर दिएमा प्रत्येक गलत उत्तर बापत २० प्रतिशत अङ्क कट्टा गरिनेछ । तर उत्तर नदिएमा त्यस बापत अङ्क दिइने छैन र अङ्क कट्टा पनि गरिने छैन ।

३. यस पाठ्यक्रम योजना अन्तर्गतका पत्र/विषयका विषयवस्तुमा जेसुकै लेखिएको भए तापनि पाठ्यक्रममा परेका कानून, ऐन, नियम तथा नीतिहरु परीक्षाको मिति भन्दा ३ महिना अगाडि संशोधन भएका वा संशोधन भई हटाईएका वा थप गरी संशोधन भई कायम रहेकालाई यस पाठ्यक्रममा परेको सम्झनु पर्दछ ।

४. प्रथम चरणको लिखित परीक्षाबाट छनौट भएका उम्मेदवारहरुलाई मात्र द्वितिय चरणको अन्तर्वार्तामा सम्मिलित गराइनेछ ।

५. पाठ्यक्रम लागू मितिः २०७८/०८/१२

प्रदेश लोक सेवा आयोग

बागमती प्रदेश

मदन भण्डारी स्वास्थ्य विज्ञान प्रतिष्ठानको पाँचौं तहको स्वास्थ्य सेवा, प्राज्ञिक समूह, ल्याब सहायक पदको प्रतियोगितात्मक परीक्षाको पाठ्यक्रम

1. **Haematology**
   - 1.1 Cleaning of glasswares and safety precaution in the laboratory
   - 1.2 Collection and preservation of different samples for the laboratory
   - 1.3 Preparation of chemicals and different stains for the Hematological tests
   - 1.4 Quality control in the laboratory
   - 1.5 Formation and development of Erythrocytes, Leucocytes, thrombocytes
   - 1.6 Principle and clinical procedure for:
     - 1.6.1 Hemoglobin estimation and it's standard curve calibration
     - 1.6.2 Total count of W.B.C., R.B.C., Platelets and reticulocytes
     - 1.6.3 E.S.R., B.T., C.T., and RBC indices
     - 1.6.4 Coomb's tests
     - 1.6.5 Blood banking & Transfusion
     - 1.6.6 Coagulation profile (mechanism, disorder & investigations)
     - 1.6.7 LE cell preparation
     - 1.6.8 Tissue parasite
     - 1.6.9 Absolutes cell count
     - 1.6.10 Osmtic fragility test
     - 1.6.11 G6PD Test
2. **MICROBIOLOGY**
   - 2.1 Bacteriology
     - 2.1.1 Classification of medically important bacteria
     - 2.1.2 Characteristics of Microorganism: Prokaryotes, Eukaryotes, Viruses
     - 2.1.3 Different methods of sterilization and disinfections
     - 2.1.4 Preparation of different media and ingredients uses and interpretation
     - 2.1.5 Preparation of chemicals and stains
     - 2.1.6 Cultural procedure of different samples aerobically and anaerobically
     - 2.1.7 Identification of bacteria and confirmative tests serologically and bio-chemically
     - 2.1.8 Different staining methods of bacteria and their principles
     - 2.1.9 T.B. Bacteriology and skin scraping for A.F.B
     - 2.1.10 Quality control in Bacteriology Laboratory
     - 2.1.11 The universal precaution in microbiology laboratory and safe west disposal of infected materials
     - 2.1.12 Bacterial growth factor
     - 2.1.13 Culture media and their types
     - 2.1.14 Safety in Microbiology Laboratory
   - 2.2 Virology
     - 2.2.1 General properties of virus comparing with bacteria, terminology used in virology and basic laboratory procedure used in the diagnosis of viral disease
     - 2.2.2 Mode of transmission of virus
   - 2.3 Parasitology
     - 2.3.1 Classification of medically important:
       - 2.3.1.1 Protozoal parasite
       - 2.3.1.2 Helminthic parasites
       - 2.3.1.3 blood parasites
       - 2.3.1.4 Semen analysis
       - 2.3.1.5 Occult blood test
     - 2.3.2 Methods of identification of different parasites from stool samples by:
       - 2.3.2.1 Wet preparation
       - 2.3.2.2 Concentration methods

2.3.2.3 Cultural methods
2.3.3 Iodine preparation
2.3.4 Method of identification of blood parasites
2.3.5 Routine Examination and special test in Urine
2.3.6 Principle and procedure of urine pregnancy test

2.4 Mycology
2.4.1 Terminologies used in mycology sample collection for fungal infection (skin scarping, nails and hair) and method of wet preparation

2.5 Immunology
2.5.1 Principle and procedure for the estimation of:
2.5.1.1 V.D.R.L., (RPR)
2.5.1.2 A.S.O.
2.5.1.3 C.R.P.
2.5.1.4 Rheumatoid factor
2.5.1.5 ELISA Test
2.5.1.6 Blood Grouping and Rh typing
2.5.1.7 H. Pylori

3. **Biochemistry**
3.1 Define of mol. wt and eq. wt
3.2 Preparation of normal and molar solution
3.3 Colorimeter/spectrophotometer
3.4 Principle and procedure of different methods for the estimation of biochemical tests
3.4.1 Sugar, Urea, Creatinine, Uric Acid, LFT Amylase
3.4.2 Cavity fluids examination
3.4.3 C.S.F examination
3.4.4 24 hours Urine Protein
3.5 Simple theory of lights waves, function of filters Beers and Lamberts law, absorbance and percent transmission
3.6 The lab hazards and precautions to be taken while working in clinical Biochemistry lab

4. **Anatomy and physiology**
4.1 Important anatomical terminologies
4.2 The composition and function of blood
4.3 The structure and functions of alimentary canal, digestive system, circulatory system, urinary system & respiratory system

5. **Histology/Cytology**
5.1 Different types of fixatives and their uses
5.2 Methods of decalcification
5.3 Methods of processing of tissues to prepare paraffin block tissue
5.4 Methods of cutting section from the paraffin block tissue and staining Procedure
5.5 Papanicolaou stain (Pap. Stain.)
5.6 Principle of different types of Microtome

6. **Relevant legislations:**
6.1 Madan Bhandari Academy of Health Sciences, 2076
6.2 Scope and function of Madan Bhandari Academy of Health Sciences executive bodies (Senate, Executive Committee, Academic Council, Faculty Board, Hospital Management Committee, Subject Committee) and various other committees
6.3 Constitution of Nepal (Part 1 to 5, 13 to 23 and All Schedules 1-9)
6.4 Social Health Security (Health Insurance) Program
6.5 Health related aspects of Sustainable Development Goals (SDGs)

6.6 Ministry of Health and Population
6.7 Ministry of Health of Bagmati Province

7. अङ्ग्रेजी :Knowledge on writing correct English sentences, letters, reports according to English grammar based on the following syntactic functions:
   7.1 Parts of Speech: a) Noun b) Pronoun c) Adjective d) Determiner e) Verb f) Adverb g) preposition h) conjunction and i) Interjection
   7.2 Concord/subject verb agreement
   7.3 Modal Auxiliaries
   7.4 Tense
   7.5 Infinitives and gerunds
   7.6 Relative Clause
   7.7 Voice
   7.8 Reported speech
   7.9 Synonyms and Antonyms
8. नेपालीः नेपाली भाषामा स्तरीय शुद्ध शब्द, वाक्यांश र वाक्य लेखनको लागि आवश्यक पर्ने ह्रस्व दीर्घ, ब र व, तथा श, ष, स लगायतका व्याकरणगत शुद्ध लेखनशैलीमा केन्द्रित शुद्ध शब्द, वाक्यांश र वाक्य लेखनसहितको नेपाली भाषाको शुद्धाशुद्धिको ज्ञान।