

पाटन स्वास्थ्य विज्ञान प्रतिष्ठान सेवाआयोग

प्राविधिक सेवा, ल्याव समूह, तह ३, ल्याव असिस्टेन्ट पदको आन्तरिक र खुल्ला प्रतियोगितात्मक परीक्षाको पाठ्यक्रम एवं परीक्षा योजना

१. प्रथमचरण: - लिखितपरीक्षा				पूर्णाङ्क :- १००		
पत्र	विषय	पूर्णाङ्क	उतीर्णाङ्क	परीक्षा प्रणाली	प्रश्नसंख्याXअङ्क	समय
प्रथम	प्राविधिकविषय	१००	४०	वस्तुगत बहुउत्तर	५० प्रश्नX२अङ्क	४५ मिनेट
२. द्वितीय चरण : -अन्तर्वार्ता						
विषय	पूर्णाङ्क	उतीर्णाङ्क	परीक्षा प्रणाली			समय
अन्तर्वार्ता	२०	-	मौखिक			

द्रष्टव्य :

- यो परीक्षा योजनालाई प्रथम चरण (लिखित परीक्षा) र द्वितीय चरण (अन्तर्वार्ता) गरी दुई चरणमा विभाजनगरिएको छ ।
- लिखित परीक्षाको माध्यमभाषा नेपालीवाअंग्रेजीअथवा नेपाली र अंग्रेजीदुवै हुनेछ ।
- लिखित परीक्षामायथासम्भव पाठ्यक्रमका सबै एकाईबाट प्रश्नहरू सोधिनेछ ।
- वस्तुगतबहुवैकल्पिक(Multiple Choice)प्रश्नहरूको गलतउत्तर दिएमाप्रत्येक गलतउत्तर बापत २० प्रतिशतअङ्ककटौतगरिनेछ । तर उत्तर नदिएमा त्यस बापतअङ्कदिइने छैन र अङ्ककटौतपनिगरिने छैन ।
- विषयगतप्रश्नमाप्रत्येकपत्र/विषयकाप्रत्येक खण्डका लागि छुट्टाछुट्टै उत्तरपुस्तिकाहरू हुनेछन् । परिक्षार्थीले प्रत्येक खण्डका प्रश्नहरूको उत्तर सोही खण्डका उत्तरपुस्तिकामा लेख्नुपर्नेछ ।
- यस पाठ्यक्रम योजनाअन्तर्गतकापत्र/विषयकाविषयवस्तुमा जेसुकै लेखिएको भएतापनि पाठ्यक्रममा परेकाकानून, ऐन, नियमतथानीतिहरू परीक्षाको मितिभन्दा ३ महिना अगाडि (संशोधनभएकावा संशोधनभई हटाईएकावाथप गरी संशोधनभई) कायम रहेकालाई यस पाठ्यक्रममा परेको सम्भन्नु पर्दछ ।
- प्रथमचरणको परीक्षाबाट छनौट भएकाउम्मेदवारहरूलाई मात्रद्वितीयचरणको परीक्षामा सम्मिलित गराइनेछ ।
- पाठ्यक्रमलागू मिति :- २०७५/६/१

पाटन स्वास्थ्य विज्ञान प्रतिष्ठान सेवाआयोग
प्राविधिक सेवा, ल्याब समूह, तह ३, ल्याब असिस्टेन्ट पदको आन्तरिक र खुल्ला प्रतियोगितात्मक परीक्षाको पाठ्यक्रम
एवं परीक्षा योजना

पत्र/विषय :- प्राविधिक विषय र सम्बन्धितकानूनहरु(Technical Subject and Related Legislation)

A. Microbiology

1. Bacteriology (10 marks)

- 1.1 General knowledge about Bacteriology
- 1.2 Morphology of Bacteria (size, shape)
- 1.3 Differentiation of bacteria (cocci, bacilli)
- 1.4 Sample collection (pus, urine, throat swab, sputum, blood)
- 1.5 Principle of Gram's stain, microscopic identification of Gram +ve and Gram -ve bacteria.
- 1.6 Staining- Use of different dye and its principle, method of preparation.
 - 1.7 Mycobacteria- M. tuberculosis/M.leprae, sample collection , staining and recording result.
 - 1.8 Preparation of sputum smear
 - 1.9 Safety precaution and proper disposal of infected materials.
 - 1.10 Culture media-General introduction to different type of culture media.
 - 1.11 General introduction to sterilization- by dry heat, moist heat,
 - 1.12 Cultural technique of blood, urine, sputum, throat swab.
 - 1.13 Use of disinfectants-preparation of disinfectant solution.
2. Parasitology (10 marks)
 - 2.1 Introduction to parasitology,
 - 2.2 Terms used in parasitology,
 - 2.3 Classification of parasites
 - 2.4 Helminthic parasites(Ascarislumbricoides, Ancylostomaduodenale, Necatar Americans, Trichiuristrichiura, Strongyloidesstercoralis, Enteribiusvermicularis, Taeniasolium, Taeniasaginata, Hymenolepis nana, life cycle, mode of transmission, laboratory diagnosis, prevention and control measures.
 - 2.5 Protozoalparasites(Giardia lamblia, Entamoebahistolytica, Entamoeba coli, Balatidum coli, Trichomonasvaginalis, Trichomonashominis) - life cycle, mode of transmission, laboratory diagnosis, prevention and control measures.
 - 2.6 Dysentery (amoebic and bacillary dysentery).
 - 2.7 Difference between of Entamoeba coli & Entamoebahistolytica
 - 2.8 Laboratory procedure :
 - 2.8.1 Collection of sample.
 - 2.8.2 Preparation of reagents: normal saline solution, Iodine solution, 33% Zinc sulphatesol'n.
 - 2.8.3 Stool examination- routine and concentration method, interpretation of results.
 - 2.8.4 Occult blood test.
 - 2.8.5 Disposal of waste materials
 - 2.9. Immunology
 - 2.9.1 Perform VDR L and HIV tests.
 - 2.9.2 Definition of precipitation, agglutination, flocculation.

B. Haematology (20marks)

- 1 Phlebotomy:
 - 1.1 Sample collection- Principle, procedure, precaution
 - 1.2 Collection of blood sample – finger prick, vein puncture, ear lobe prick.
 - 1.3 Anticoagulants, types of anticoagulants, preparation of Anticoagulant vials.
2. Composition of blood, plasma, serum and whole blood.
- 3 Use of instruments – Sahli's haemoglobinometer, haemocytometers, diluting pipettes, Neubaur counting chamber, ESR tubes, importance of bulk dilution, preparation of blood diluting fluid.
- 4 Preparation of thin and thick blood smears.
- 5 Total WBC, RBC and platelet count.

पाटन स्वास्थ्य विज्ञान प्रतिष्ठान सेवाआयोग
प्राविधिक सेवा, ल्याब समूह, तह ३, ल्याब असिस्टेन्ट पदको आन्तरिक र खुल्ला प्रतियोगितात्मक परीक्षाको पाठ्यक्रम
एवं परीक्षा योजना

- 6 Sources of error in blood count.
- 7 Differential WBC count.
- 8 ESR estimation (Wintrobe and Westergren method).
- 9 Haemoglobin estimation,
- 10 Preparation of Drabkin's Solution.
- 11 Use of Sahli Haemoglobinometer
- 12 Preparation of N/10 HCL.
- 13 Performance of –BT,CT,
- 14 Staining procedure – Preparation and use of Wright's stain and its principle.
- 15 Staining procedure- Preparation and use of Reticulocyte stain and its principle.
- 16 Blood parasites – Malaria, filaria,

17 Blood bank (5 marks)

- 17.1 Perform phlebotomy and its principle
- 17.2 Storage of blood and its component
- 17.3 Perform blood grouping
- 17.4 Storage and issue blood bag

C. Biochemistry (20 marks)

- 1 Basic chemistry- matter, substance, atom and molecules element, compound.
- 2 Solution- Preparation of normal sol'n,
- 3 Cleaning of glass-ware
- 4 Instrument : Colorimeter, , Centrifuge, Balance, Refrigerator
- 5 Law of colorimetry-Beer's and Lambert's law
- 6 Collection of specimen for biochemical tests
- 7 Estimation of B.glucose preparation of std. curve interpretation of results, source of errors.
- 8 Estimation of Blood Urea ,interpretation of result, source of errors.
- 9 Preparation of reagents for Glucose, Urea,
- 10 Estimation of S.amylase, and calculation of results.
- 11 CSF – Glucose, Protein, Cell count, Gram's stain, AFB stain

D. Histopathology/Cytopathology (10marks)

1. Preparation of various types fixatives used in histopathology and cytopathology and its principle
2. Staining Procedure- Hematoxylin and Eosin stain and its principle
3. Staining Procedure- Papanicolaou stain and its principle
4. Tissue processing- principle and procedure

E. Miscellaneous (20marks)

1. Urinalysis

- 1.1 Importance of urine analysis
 - 1.2 Collection of specimen
 - 1.3 Preservation of urine for routine & culture purpose.
 - 1.4 Examination of urinary deposit
 - 1.5 Urine albumin test by heat and acetic acid, SSA method & strip.
 - 1.6 Urinary glucose test by Benedict's & strip methods.
 - 1.7 Preparation of Benedict's reagents.

2. Semen analysis

- 2.1 Volume
- 2.2 Chemical tests
- 2.3 Sperm count

पाटन स्वास्थ्य विज्ञान प्रतिष्ठान सेवाआयोग

प्राविधिक सेवा, ल्याब समूह, तह ३, ल्याब असिस्टेन्ट पदको आन्तरिक र खुल्ला प्रतियोगितात्मक परीक्षाको पाठ्यक्रम एवं परीक्षा योजना

3. Instrumentation

3.1 Microscope- use of microscope, parts of microscope, handling of microscope.

3.2 Use of incubators, hot air oven, water bath, refrigerator, chemical balance, Colori meter.

3.3 Basic knowledge of glass-wares (test tube, flask, measuring cylinder).

4. Basic knowledge of Anatomy and Physiology

6.1 Digestive system – pancreatic amylase, ptylin

6.2 Urinary system – kidney, bladder, ureter

F. ऐन, नियमहरू(5 marks)

७.१ पाटन स्वास्थ्य विज्ञान प्रतिष्ठानको संगठन संरचनातथाकार्यक्षेत्र सम्बन्धीजानकारी

७.२ पाटन स्वास्थ्य विज्ञान प्रतिष्ठान ऐन, २०६४

७.३ पाटन स्वास्थ्य विज्ञान प्रतिष्ठानको कर्मचारी सेवाकाशर्त र सुविधा सम्बन्धीनियमावली, २०६७

७.४ पाटन अस्पताल संचालनविनियमावली, २०६७

७.५ नेपाल स्वास्थ्य सेवा ऐन, २०५३ र स्वास्थ्य सेवानियमावली, २०५५
