

सशास्त्र प्रहरी बल, नेपाल
प्राविधिक सशास्त्र प्रहरी नायव निरीक्षक (डेण्टल हाईजेनिष्ट) पदको खुला प्रतियोगितात्मक लिखित परीक्षाको पाठ्यक्रम
एवं
परीक्षा योजना

पाठ्यक्रमको रूपरेखा :- यस पाठ्यक्रमको आधारमा निम्नानुसार चरणमा परीक्षा लिइने छ :

प्रथम चरण :- लिखित परीक्षा

पूर्णाङ्क :- १००

द्वितीय चरण :- अन्तर्वार्ता

पूर्णाङ्क :- २०

१. प्रथम चरण : - लिखित परीक्षा				पूर्णाङ्क :- १००			
पत्र	विषय	पूर्णाङ्क	उतीर्णाङ्क	परीक्षा प्रणाली		प्रश्नसंख्या X अङ्क	समय
प्रथम	सेवा सम्बन्धी र सामान्य ज्ञान	१००	४०	वस्तुगत	बहुवैकल्पिक प्रश्न	५० प्रश्न X १ अङ्क	२ घण्टा ३० मिनेट
				विषयगत	छोटो उत्तर लामो उत्तर	८ प्रश्न X ५ अङ्क १ प्रश्न X १० अङ्क	
२. द्वितीय चरण : - अन्तर्वार्ता							
	विषय	पूर्णाङ्क	उतीर्णाङ्क	परीक्षा प्रणाली			समय
	अन्तर्वार्ता	२०	-	मौखिक			

द्रष्टव्य :

- लिखित परीक्षाको माध्यम भाषा नेपाली वा अंग्रेजी अथवा नेपाली र अंग्रेजी दुवै हुनेछ ।
- लिखित परीक्षामा यथासम्भव पाठ्यक्रमका सबै एकाईबाट प्रश्नहरु सोधिनेछ ।
- वस्तुगत बहुवैकल्पिक (Multiple Choice) 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 ।
- 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 ।
- प्रथम चरणको परीक्षाबाट छनौट भएका उम्मेदवारहरुलाई मात्र द्वितीय चरणको परीक्षामा सम्मिलित गराइनेछ ।
- पाठ्यक्रम लागू मिति : २०७२/०९/१९ गते ।

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पत्र/विषय :- सेवा सम्बन्धी र सामान्य ज्ञान

खण्ड (A): 80 Marks

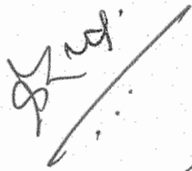
1. Basic Science, Oral Anatomy and Physiology

1.1 Basic Science

- 1.1.1 Matter and its properties
- 1.1.2 Work, power and energy, power, friction, momentum, temperature and temperature measuring instruments
- 1.1.3 Study of electro – technology applied to dental work
 - 1.1.3.1 Basic electricity, current voltage, Ohm's Law, AC, DC, electrical measurements.
- 1.1.4 Physical and chemical changes of elements, mixtures and compounds.
- 1.1.5 Electrolysis, electroplating
- 1.1.6 General characteristics of common metal used in the dental work and their compounds

1.2 Oral Anatomy and Physiology

- 1.2.1 Definition and terminologies
- 1.2.2 Skeleton system
 - 1.2.2.1 Review of skeleton of head and neck
 - 1.2.2.2 Maxilla
 - 1.2.2.3 Maxillary sinus
 - 1.2.2.4 Mandible
- 1.2.3 Muscular System
 - 1.2.3.1 Review on facial muscles
 - 1.2.3.2 Muscles of mastication
- 1.2.4 Temporo-mandibular joint
- 1.2.5 Oral cavity
- 1.2.6 Periodontium
 - 1.2.6.1 Gingiva
 - 1.2.6.2 Periodontal ligament
 - 1.2.6.3 Cementum
 - 1.2.6.4 Alveolar bone
- 1.2.7 Tooth
 - 1.2.7.1 Growth and development of tooth
 - 1.2.7.2 Anatomy of tooth
 - 1.2.7.3 Occlusion
 - 1.2.7.4 Tooth numbering system
- 1.2.8 Physiology of mastication & deglutition
- 1.2.9 Salivary gland
 - 1.2.9.1 Parotid, submandibular and sublingual gland
 - 1.2.9.2 Saliva
- 1.2.10 Neurology



2 Periodontics

- 2.1 Introduction, scope and historical background of periodontology/periodontics
- 2.2 Definition, normal clinical and microscopic features of gingiva; development of gingival sulcus; renewal of gingival epithelium; blood supply, lymphatic drainage and nerve supply of gingiva; correlation of normal clinical and microscopic features of gingiva
- 2.3 Definition and functions of periodontal ligament and its fibres with illustrations
- 2.4 Describe cementum and its structure; classify and types of cementum; cemento-enamel junction
- 2.5 Definition and structure of alveolar process; socket wall and interdental septum; remodelling of alveolar bone; physiologic migration of the teeth; occlusal forces and the periodontium; defense mechanism in periodontal health
- 2.6 Classification of gingival and periodontal diseases as described in World Workshop on Periodontal Health 1999
- 2.7 Definition of epidemiology, incidence and index; epidemiology, prevalence and incidence of periodontal disease; indices used in periodontics; periodontal index, gingival index, oral science index and CPITN
- 2.8 Definition, structure, composition, physiologic properties and microbiology of dental plaque; formation of dental plaque; role of dental plaque in periodontal disease, association of plaque micro-organisms with periodontal disease, mechanism of inflammatory cell response
- 2.9 Classification, composition and etiologic significance of dental calculus
- 2.10 Aging and its effect on periodontium
- 2.11 Plaque control measures and its significance; classification of plaque control methods; personal oral science methods; use of disclosing agents
- 2.12 Tooth brush and its types; dentifrices and its composition; composition and mechanism of action of fluoridated toothpastes and desensitizing toothpastes; various types of tooth brushing methods and their significance in different patients; use of toothpick, dental floss, inter-dental brushes and gum massage / gum stimulator
- 2.13 Classification of chemical plaque control agents and their mechanism of action
- 2.14 Periodontal instrument design and classification; various diagnostic instruments; various manual periodontal instruments including hoe, files; various scalers, curets and root planning instruments; sonic, ultrasonic and piezo-electric scalers
- 2.15 Anatomic descriptions and considerations during periodontal instrumentation; patient and operator position; instrument grasp; establishing finger rests; instrument angulations, activation and adaptation; various strokes of using manual instruments
- 2.16 Principles and objective of sharpening; various sharpening stones and materials; sharpening of sickle scalers and curettes

3 Oral Pathology and Microbiology

- 3.1 Concept, causes and types of inflammation and abscess
- 3.2 Definition of facial space and enumerate spaces of oro-facial region; cellulitis and its complications; common dental space infections and its complications; Ludwig's angina and its complications
- 3.3 Common oral ulcerations and lesions afflicting oral cavity; common viral lesions afflicting oral cavity; various pre-cancerous lesions and conditions
- 3.4 Oral manifestations of diabetes mellitus, leukemia, anemia, syphilis, tuberculosis, AIDS; candidiasis and oral thrush; HIV/AIDS and its prevention, mode of infection and oral manifestations; infective endocarditis and risk factors; clinical features and prophylaxis of infective endocarditis.
- 3.5 Oral microbiology and normal oral flora of human being from birth to old age

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- 3.6 Introduction to micro-organisms (bacteria, virus, fungi, protozoa, amoeba)
 - 3.7 Source, types, clinical features and sequelae of infection
 - 3.8 Definition of infection control, sterilization and disinfection; various levels of infection control; antiseptic and asepsis
 - 3.9 Different methods of sterilization; fumigation procedure and safety factors
 - 3.10 Definition and procedures followed in universal precaution
 - 3.11 Concept and process of hand scrubbing in operatory with their significance; self protection in operatory; process of decontamination of gloves, linens and surgical drapes; decontaminate process of decontamination of dental equipment and instruments including dental chair, hand piece, suction apparatus, x- ray films
 - 3.12 Types of waste management; clinical wastes and procedure of waste management of dental operatory; dental amalgam waste management
- 4 Oral Medicine and Radiology**
- 4.1 Oral medicine - definition, scope and clinical application
 - 4.2 Principles of oral diagnosis, swelling, ulcer, sinus, fistula, mucosal lesions, pain and TMJ problems definitions
 - 4.3 Case history and components; physical examination methodologies (general-extra oral, intra oral)
 - 4.4 Concepts of provisional diagnosis and differential diagnosis
 - 4.5 Clinical chair side investigations and radiological investigations - hematological, microbiological, histopathological
 - 4.6 Final/confirmed diagnosis formulation of treatment plan referral for opinions
 - 4.7 Dental disorders- Developmental malformations, discoloration of teeth
 - 4.8 Diseases of the tongue and its manifestations in systemic diseases
 - 4.9 Concept of pre-malignancy – premalignant lesions and conditions and complications
 - 4.10 Oral cancer etiology, epidemiology, screening, clinical features, diagnosis, prevention and management and complications
 - 4.11 Diseases of salivary glands and complications
 - 4.12 Biologic effects of radiation and radiation protection
 - 4.13 Principles of radiotherapy – preparation of patient for oral radiotherapy, management of post radiation oral complications
 - 4.14 Basic radiographic techniques - IOPA, OPG, Lateral Ceph
 - 4.15 Advanced radiographic techniques - panoramic radiography, cephalometric radiography, CT scans, radionuclide diagnosis, digital radiography, applications of imaging in oral medicine - MRI, ultra sound
- 5 Oral and Maxillofacial Surgery**
- 5.1 Principles of surgery
 - 5.2 Local anaesthesia in dentistry - classification, composition, mechanism of action, ideal properties, complications
 - 5.3 Type of mandible and maxilla fracture and its basic management and complications
 - 5.4 Exodontia and its complications
 - 5.5 Impacted teeth, wisdom teeth and its significance with complications
 - 5.6 Oro-facial pain in brief
 - 5.7 Common medical emergencies, odontogenic space infections in brief, fungal and viral infections of head and neck in dental practice and their complications
 - 5.8 Incisional and excisional biopsy
 - 5.9 Assisting Dental Surgeons during various dental procedures

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6 Conservative and Endodontics

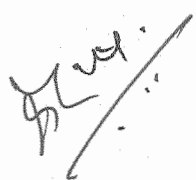
- 6.1 Definition, etiology, clinical features, sequelae and prevention of dental caries
- 6.2 Definition, causes, clinical features and treatment options of attrition, abrasion and erosion
- 6.3 Diseases of pulp and periapical tissues
- 6.4 Classification, etiology, clinical features and sequelae of pulp and periapical tissues
- 6.5 Classify dental injuries and storage of avulsed tooth following tooth avulsion
- 6.6 Classify instruments for restorative and endodontic procedures
- 6.7 Discuss the manipulation of various materials such as amalgam, composite, cements, calcium hydroxide, sealers

7 Dental Materials, Instruments and Dental Assisting

- 7.1 Commonly used dental materials; importance of disinfection of dental materials; requirement of shelf life and storage of dental materials
- 7.2 Gypsum products and its application in dentistry; manipulation process of gypsum products; calculation of recommended water power ratio; process of disinfection of gypsum materials
- 7.3 Definition and classification of impression materials; desirable properties, process of transfer and storage of impression materials
- 7.4 Ideal requirements and manipulation process of impression compound, zinc oxide eugenol impression paste, alginate, elastomeric impression material
- 7.5 Types of dental waxes and manipulation process of modeling wax
- 7.6 Dental models, cast and die materials and different dental materials used for making them; manipulation process of dental plaster, dental stone and die stone; laboratory process of pouring and base forming of cast
- 7.7 Identification and classification of dental instruments
- 7.8 Classification and types of impression trays; methods of sterilization of impression trays
- 7.9 Various parts of dental chair and their functions
- 7.10 Various positions of the operator and the assistant; various steps of patient preparation before operative procedure; post treatment instructions after various dental procedures
- 7.11 Different methods of saliva control and isolation; cotton roles for saliva control
- 7.12 Cleaning of dental equipment including suction apparatus, amalgamator, scaling machine, autoclave, light cure machine, compressor

8 Prosthodontics

- 8.1 Define partial edentulism
- 8.2 Etiology, clinical features, classification and sequel of partial edentulous situation
- 8.3 Prevention of partial edentulism
- 8.4 Define edentulism
- 8.5 Etiology and clinical features of edentulous situation
- 8.6 Prevention of edentulism
- 8.7 Instruments for various prosthodontic procedures
- 8.8 Sterilization and maintenance of instruments and equipments
- 8.9 Manipulation of various materials such as alginate, impression compound, various luting cements, zinc oxide eugenol



8.10

9 Orthodontic

- 9.1 Squeal of malocclusion
- 9.2 Complication of orthodontic treatment
- 9.3 Limitation of removable appliance
- 9.4 Complication of deep bite
- 9.5 TMJ problem referral
- 9.6 Referral - cross bite
- 9.7 Ideal age for orthopedic correction
- 9.8 Immediate treatment required cases for referral
- 9.9 Proclination of upper anterior, orthopaedics problems cross bite
- 9.10 Root resorption

10 Pedodontics

- 10.1 Complication of extraction in children
- 10.2 Treatment modalities in open apex in permanent teeth
- 10.3 Complication of thumb sucking habit
- 10.4 Avulsion of a tooth and storing media
- 10.5 Different space maintainers used in children

11 Health Service System

- 11.1 Health service system in Nepal
- 11.2 History of the development of dental health services in Nepal
- 11.3 Purpose and characteristics of a dental health care system
- 11.4 Ayurvedic, homeopathic and allopathic approaches to dental health care
- 11.5 Health Management and Dental Health Management
- 11.6 National Health Policy and National Oral Health Policy
- 11.7 Code of conduct for Dental Hygienist and its purpose

खण्ड (B): 20 Marks

12 सामान्य ज्ञान तथा ऐन, नियमहरू

- 12.1 नेपालको भौगोलिक, ऐतिहासिक, आर्थिक, सामाजिक, सांस्कृतिक अवस्था सम्बन्धी जानकारी
- 12.2 राष्ट्रिय र अन्तर्राष्ट्रिय महत्वका समसामयिक घटनाहरू : राजनैतिक, आर्थिक, वैज्ञानिक, खेलकूद
- 12.3 विद्यमान नेपालको संविधानको सामान्य जानकारी
- 12.4 सशस्त्र प्रहरी बल सम्बन्धी सामान्य जानकारी
- 12.5 सशस्त्र प्रहरी ऐन, २०५८ र सशस्त्र प्रहरी नियमावली, २०७२

यस पत्र/विषयको पाठ्यक्रमबाट यथासम्भव निम्नानुसार प्रश्नहरू सोधिनेछ ।

खण्ड	अङ्कभार	प्रश्न संख्या	
		वस्तुगत	विषयगत
A	८०	३० प्रश्न X १ अङ्क = ३०	८ प्रश्न X ५ अङ्क = ४० १ प्रश्न X १० अङ्क = १०
B	२०	२० प्रश्न X १ अङ्क = २०	-

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