

**लोक सेवा आयोग**  
नेपाल स्वास्थ्य सेवा, डेन्टिष्ट्री समूह, सहायक पाँचौं तह, डेन्टल हाइजेनिष्ट वा सो सरह पदको खुला र आन्तरिक  
प्रतियोगितात्मक परीक्षाको पाठ्यक्रम

पाठ्यक्रमको रूपरेखा :- यस पाठ्यक्रमको आधारमा निम्नानुसार चरणमा परीक्षालिइने छ :

प्रथम चरण :-	लिखित परीक्षा	पूर्णाङ्क :- १००
द्वितीय चरण :-	अन्तर्वार्ता	पूर्णाङ्क :- २०

**प्रथम चरण – लिखित परीक्षा योजना (Written Examination Scheme)**

विषय	पूर्णाङ्क	उत्तीर्णाङ्क	परीक्षा प्रणाली	प्रश्न संख्या X अङ्कभार	समय
डेन्टिष्ट्री 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. लिखित परीक्षाको माध्यम भाषा नेपाली वा अंग्रेजी अथवा नेपाली र अंग्रेजी दुवै हुन सक्नेछ ।
२. लिखित परीक्षामा यथासम्भव निम्नानुसार प्रश्नहरू सोधिनेछ ।

Unit	1	2	3	4	5	6	7	8	9	10
No. of Questions	2	10	3	3	3	8	8	6	5	2

३. वस्तुगत बहुवैकल्पिक (Multiple Choice) प्रश्नहरूको 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 ।
४. यस पाठ्यक्रम योजना अन्तर्गतका पत्र/विषयका विषयवस्तुमा जेसुकै लेखिएको भए तापनि पाठ्यक्रममा परेका कानून, ऐन, नियम तथा नीतिहरू परीक्षाको मिति भन्दा ३ महिना अगाडि (संशोधन भएका वा संशोधन भई हटाईएका वा थप गरी संशोधन भई) कायम रहेकालाई यस पाठ्यक्रममा परेको सम्झनु पर्दछ ।
५. प्रथम चरणको लिखित परीक्षाबाट छनौट भएका उम्मेदवारहरूलाई मात्र द्वितीय चरणको अन्तर्वार्तामा सम्मिलित गराइनेछ ।
६. पाठ्यक्रम लागू मिति :- २०७२/०४/२८ गते देखि

**1. Health Service System**

- 1.1 Health service system in Nepal
- 1.2 History of the development of dental health services in Nepal
- 1.3 Purpose and characteristics of a dental health care system
- 1.4 Ayurvedic, homeopathic and allopathic approaches to dental health care
- 1.5 Introduction and functions of management
- 1.6 Health Management and Dental Health Management
- 1.7 Health Service planning system in Nepal
- 1.8 Types of health service organizations in Nepal including dental health services
- 1.9 Purpose, important and process of Health Management Information System (HMIS), use of the different types of HMIS forms, records and reports
- 1.10 Activities and goals Non-Governmental Organizations (NGOs) and International Non-Governmental Organizations (INGOs) are working in health sectors and their role in promoting the health care system
- 1.11 Objectives and activities of national health programmes
- 1.12 National Health Policy and National Oral Health Policy
- 1.13 General knowledge of current periodical plan related to health
- 1.14 Code of conduct for Dental Hygienist and its purpose
- 1.15 Formation, activities and functioning of the Nepal Health Professional Council

**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

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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
- 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

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- 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
- 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

## 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

---- End ---

**Sample Questions**

- Proximal caries usually starts at or in  
A) Contact area                      C) Above contact area below marginal ridge  
B) Gingival to contact area        D) Gingival to free gingival margin
- Antibiotic prophylaxis is suggested for patients with a history of which of the following?  
A) Coronary bypass surgery                      C) Atrial fibrillation  
B) Artificial heart valve replacement                      D) Myocardial infarction
- Which of the following is commonly recommended procedure for debridement of a cavity?  
A) Citric acid                      C) Hydrogen peroxide -10%  
B) Air & water spray                      D) Hydrochloric acid
- The cement which is least soluble in oral cavity  
A) Glass ionomer                      C) Resin cement  
B) Polycarboxylate cement                      D) Silico-phosphate cement
- A successful inferior alveolar nerve block will produce anaesthesia of the  
A) Lower lip  
B) Lower lip and mandibular teeth  
C) Lower lip, mandibular teeth and labial gingivae of the anterior mandibular teeth  
D) Lower lip, mandibular teeth and labial gingivae of the anterior and buccal gingivae of the posterior mandibular teeth
- The chemical disintegration of enamel is known as  
A) Attrition                      C) Abrasion  
B) Hypoplasia                      D) Erosion
- Inflammation of lip is known as  
A) Chelitis                      B) Stomatitis  
B) Sialadenitis                      D) Vincent's angina
- The most common malignancy in oral cavity are  
A) Squamous cell carcinoma                      B) Adenocarcinoma  
B) Basal cell carcinoma                      D) Malignant melanoma
- The golden age for the correction of skeletal problem is  
A) 6 years                      B) 8 years                      C) 9 years                      D) 11 years
- Most common missing permanent tooth in maxillary arch is  
A) Central incisor                      C) Lateral incisor  
B) Second premolar                      D) First molar