प्रदेश निजामती सेवा तथा स्थानीय सरकारी सेवा अन्तर्गतको स्वास्थ्य सेवा, डेन्टल समूह, सहायक पाँचौं तह डेन्टल हाइजेनिष्ट वा सो सरह पदको खुला र आन्तरिक प्रतियोगितात्मक परीक्षाको पाठ्यक्रम

पाठ्यक्रमको रुपरेखाः — यस पाठ्यक्रमको आधारमा निम्नानुसार चरणमा परीक्षा लिइने छः

प्रथम चरण:- लिखित परीक्षा

पूर्णाङ्कः-

१००

द्वितीय चरण:-

अन्तर्वार्ता

पूर्णाङ्कः- २०

#### प्रथम चरण:- लिखित परीक्षा योजना (Written Examination)

विषय	पूर्णाङ्क	उत्तीर्णाङ् <b>क</b>	परीक्षा प्रणाली	प्रश्न संख्या × अङ्कभार	समय
सेवा सम्बन्धी	900	४०	वस्तुगत बहुवैकल्पिक	५० प्रश्न × २ अङ्क = १००	४५ मिनेट

#### द्वितीय चरण:-

Ī	विषय	पूर्णाङ्क	परीक्षा प्रणाली			
	अन्तर्वार्ता	२०	बोर्ड अन्तर्वार्ता (Board Interview)			

#### द्रष्टव्य:-

बस्तुगत बैकल्पिक परीक्षामा यथासम्भव निम्नानुसार प्रश्नहरु सोधिनेछ ।

एकाइ	٩	२	n	४	ሂ	હ	9	5	९ १०	99	92	93	98
प्रश्न संख्या	X	હ	ሂ	હ	m	X	m	m	प्र २	٦	२	2	٩

- २. 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।
- 3. यस पाठ्यक्रम योजना अन्तर्गतका पत्र/विषयका विषयवस्तुमा जेसुकै लेखिएको भएतापनि पाठ्यक्रममा परेका कानून, ऐन, नियम तथा नीतिहरु परीक्षाको विज्ञापन हुदाँका वखत (संशोधन भएका वा संशोधन भई हटाईएका वा थप गरी संशोधन भई) कायम रहेकालाई यस पाठ्यक्रममा परेको सम्झन पर्दछ।
- ४. प्रथम चरणको लिखित परीक्षाबाट छनौट भएका उम्मेदवारहरुलाई मात्र द्वितीय चरणको अन्तर्वार्तामा सम्मिलित गराइनेछ ।
- 🔾 . बहुवैकल्पिक प्रश्नहरू हुने परीक्षामा कुनै प्रकारको क्याल्कुलेटर (Calculator) प्रयोग गर्न पाइने छैन् ।
- ६. परीक्षमा परीक्षार्थीले मोबाइल वा यस्तै प्रकारका विद्युतीय उपकरण परीक्षा हलमा लैजान पाइने छैन्।
- पाठ्यक्रम लागू मितिः

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### (50 प्रश्न × 2 अङ्क= 100 अङ्क)

### 1. सार्वजनिक व्यवस्थापन (Public Management )

- 1.1. कार्यालय व्यवस्थापन
  - 1.1.1. कार्यालय (Office) परिचय, महत्व, कार्य र प्रकार
  - 1.1.2. सहायक कर्मचारीका कार्य र गुणहरु
  - 1.1.3. कार्यालय स्रोत साधन (Office Resources): परिचय र प्रकार
  - 1.1.4. कार्यालयमा सञ्चारको महत्व, किसिम र साधन
  - 1.1.5. कार्यालय कार्यविध(Office Procedure) पत्र व्यवहार (Correspondence), दर्ता र चलानी (Registration & Dispatch), परिपत्र (Circular), तोक आदेश(Order), टिप्पणी लेखन र टिप्पणी तयार पार्दी ध्यान दिनुपर्ने कुराहरु
  - 1.1.6. अभिलेख व्यवस्थापन (Record Management)
- 1.2. निजामती सेवा ऐन र नियमावलीमा भएका देहायका व्यवस्थाहरू
  - 1.2.1. निजामती सेवा, प्रदेश निजमती सेवा र स्थानीय सरकारी सेवाको गठन, संगठन संरचना, पदपूर्ति गर्ने तरिका र प्रक्रियाहरू
  - 1.2.2. नेपाल सरकार प्रदेश सरकारको स्वास्थ्य संगठन संरचनाको बारेमा जानकारी
  - 1.2.3. कर्मचारीको नियुक्ति, सरुवा, बढुवा, बिदा, विभागीय सजाय र अवकाश
  - 1.2.4. कर्मचारीले पालन गर्नुपर्ने आचरण र कर्तव्यहरु
- 1.3. सरकारी बजेट, लेखा र लेखापरीक्षण प्रणाली सम्बन्धी सामान्य जानकारी
- 1.4. सार्वजनिक सेवा प्रवाहको अर्थ, सेवा प्रवाह गर्ने निकाय, तरिका र माध्यमहरू
- 1.5. सार्वजनिक बडापत्र (Public Charter) महत्व र आवश्यकता
- 1.6. व्यवस्थापनको अवधारणा तथा सार्वजनिक व्यवस्थापनमा निर्देशन, नियन्त्रण, समन्वय, निर्णय प्रक्रिया, उत्प्रेरणा र नेतृत्व सम्वन्धी जानकारी
- 1.7. मानवीय मूल्य मान्यता (Human Values), नागरिक कर्तव्य र दायित्व तथा अनुशासन
- 1.8. Basics of Computer Science (MS Word, Excel, Power Point)
- 1.9. स्वास्थ्य नीति, २०७६, स्वास्थ्य सेवा ऐन, २०५३, स्वास्थ्य सेवा नियमावली २०५५
- 1.10. लुम्बिनी प्रदेश स्वास्थ्य नीति, २०७७, प्रदेश स्वास्थ्य संस्था स्थापना सञ्चालन निवकरण तथा स्तरोन्नित ऐन, २०७५ र प्रदेश स्वास्थ्य संस्था स्थापना सञ्चालन निवकरण तथा स्तरोन्नित नियमावली, २०७७
- 1.11. स्वास्थ्यकर्मीहरूको पेशागत परिषद् सम्बन्धी जानकारी र आचारसंहिता

#### 2. Health Service System

- 2.1. Health service system in Nepal
- 2.2. History of the development of dental health services in Nepal
- 2.3. Purpose and characteristics of a dental health care system
- 2.4. Ayurvedic, homeopathic and allopathic approaches to dental health care
- 2.5. Introduction and functions of management
- 2.6. Health Management and Dental Health Management
- 2.7. Health Service planning system in Nepal
- 2.8. Types of health service organizations in Nepal including dental health services
- 2.9. Purpose, important and process of Health Management Information System (HMIS), use of the different types of HMIS forms, records and reports
- 2.10. 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
- 2.11. Objectives and activities of national health programmes
- 2.12. National Health Policy and National Oral Health Policy
- 2.13. General knowledge of current periodical plan related to health

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- 2.14. Code of conduct for Dental Hygienist and its purpose
- 2.15. Formation, activities and functioning of the Nepal Health Professional Council

#### 3. Dental assisting

- 3.1: Dental chair
  - 3.1.1. Enlist and identify various parts of dental chair and their functions
  - 3.1.2. Demonstrate the operation of dental chair units into various positions
- 3.2: Chair-side assisting
  - 3.2.1. Demonstrate various positions of the operator and the assistant
  - 3.2.2. Describe various steps of patient preparation before operative procedure
- 3.2.3. Describe patient preparation in special situations including the case of child patient, handicapped patient, apprehensive patient, medically compromised patient, pregnant patient etc.
- 3.2.4. Describe role of dental assisting in special situations including medical emergencies
- 3.2.5. Describe role of dental assisting in special situation like choking, or aspiration of dental instruments/materials by the patient
  - 3.2.6. Describe post treatment instructions after various dental procedures
- 3.3: Saliva control and isolation
  - 3.3.1. Enlist different methods of saliva control & isolation
  - 3.3.2. Describe use of suction machine for saliva control
  - 3.3.3. Describe application of rubber dam for isolation of tooth
  - 3.3.4. Prepare cotton roles for saliva control
- 3.4 Maintenance of dental equipment and instruments
  - 3.4.1. Demonstrate cleaning of dental chair
- 3.4.2. Demonstrate cleaning of dental equipment including suction apparatus, amalgamator, scaling machine, autoclave, light cure machine, compressor etc.
  - 3.4.3. Describe disinfection of water pipe, handpiece chord, drainage system of dental chair unit 3.4.4. Describe air servicing of dental chair unit 2.
- 3.4.5. Sterilization of dental instruments: Define sterilization, Enlist different methods of sterilization, Describe the process of sterilization and disinfection of various dental instruments, Describe sterilization dental handpiece
- 3.4.6: Dental waste disposal: Define waste disposal, Discuss the types of biological waste products in the dental operatory, Explain mercury waste in the dental operatory, Discuss the process of various biological and physical waste in the dental operatory

#### 4. Periodontics

- 4.1. Introduction, scope and historical background of periodontology/periodontics
- 4.2. 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
- 4.3. Definition and functions of periodontal ligament and its fibres with illustrations
- 4.4. Describe cementum and its structure; classify and types of cementum; cementoenamel junction
- 4.5. Definition and structure of alveolar process; socket wall and interdental septum; remodeling of alveolar bone; physiologic migration of the teeth; occlusal forces and the periodontium; defense mechanism in periodontal health
- 4.6. Classification of gingival and periodontal diseases as described in World Workshop on Periodontal Health 1999
- 4.7. 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

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- 4.8. 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
- 4.9. Classification, composition and etiologic significance of dental calculus
- 4.10. Aging and its effect on periodontium
- 4.11. Plaque control measures and its significance; classification of plaque control methods; personal oral science methods; use of disclosing agents
- 4.12. 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
- 4.13. Classification of chemical plaque control agents and their mechanism of action
- 4.14. 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-electricscalers
- 4.15. 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
- 4.16. Principles and objective of sharpening; various sharpening stones and materials; sharpening of sickle scalers and curettes

#### 5. Oral Pathology and Microbiology

- 5.1. Concept, causes and types of inflammation and abscess
- 5.2. Definition of facial space and enumerate spaces of oro-facial region; cellulitis and its complications; common dental space infections and its complications;
- 5.3. Ludwig's angina and its complications
- 5.4. Common oral ulcerations and lesions afflicting oral cavity; common viral lesions afflicting oral cavity; various pre-cancerous lesions and conditions
- 5.5. 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
- 5.6. Oral microbiology and normal oral flora of human being from birth to old age
- 5.7. Introduction to micro-organisms (bacteria, virus, fungi, protozoa, amoeba)
- 5.8. Source, types, clinical features and sequelae of infection
- 5.9. Definition of infection control, sterilization and disinfection; various levels of infection control; antiseptic and asepsis

#### 6. Oral Medicine and Radiology

- 6.1. Oral medicine definition, scope and clinical application
- 6.2. Principles of oral diagnosis, swelling, ulcer, sinus, fistula, mucosal lesions, pain and TMJ problems definitions
- 6.3. Case history and components; physical examination methodologies (general-extra oral, intra oral)
- 6.4. Concepts of provisional diagnosis and differential diagnosis
- 6.5. Clinical chair side investigations and radiological investigations hematological, microbiological, histopathological
- 6.6. Final/confirmed diagnosis formulation of treatment plan referral for opinions
- 6.7. Dental disorders- Developmental malformations, discoloration of teeth

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- 6.8. Diseases of the tongue and its manifestations in systemic diseases
- 6.9. Concept of pre-malignancy premalignant lesions and conditions and complications
- 6.10. Oral cancer etiology, epidemiology, screening, clinical features, diagnosis, prevention and management and complications
- 6.11. Diseases of salivary glands and complications
- 6.12. Biologic effects of radiation and radiation protection
- 6.13. Principles of radiotherapy preparation of patient for oral radiotherapy, management of post radiation oral complications
- 6.14. Basic radiographic techniques IOPA, OPG, Lateral Ceph
- 6.15. Advanced radiographic techniques panoramic radiography, cephalometric radiography, CT scans, radionucleide diagnosis, digital radiography, applications of imaging in oral medicine - MRI, ultra sound

### 7. Oral and Maxillofacial Surgery

- 7.1. Principles of surgery
- 7.2. Local anaesthesia in dentistry classification, composition, mechanism of action, ideal properties, complications
- 7.3. Type of mandible and maxilla fracture and its basic management and complications
- 7.4. Exodontia and its complications
- 7.5. Impacted teeth, wisdom teeth and its significance with complications
- 7.6. Oro-facial pain in brief
- 7.7. Common medical emergencies, odontogenic space infections in brief, fungal and viral infections of head and neck in dental practice and their complications
- 7.8. Incisional and excisional biopsy
- 7.9. Assisting Dental Surgeons during various dental procedures

#### 8. Conservative and Endodontics

- 8.1. Definition, etiology, clinical features, sequelae and prevention of dental caries
- 8.2. Definition, causes, clinical features and treatment options of attrition, abrasion and erosion
- 8.3. Diseases of pulp and periapical tissues
- 8.4. Classification, etiology, clinical features and sequelae of pulp and periapical tissues
- 8.5. Classify dental injuries and storage of avulsed tooth following tooth avulsion
- 8.6. Classify instruments for restorative and endodontic procedures
- 8.7. Discuss the manipulation of various materials such as amalgam, composite, cements, calcium hydroxide, sealers

### 9. Dental Materials, Instruments and Dental Assisting

- 9.1. Commonly used dental materials; importance of disinfection of dental materials; requirement of shelve life and storage of dental materials
- 9.2. Gypsum products and its application in dentistry; manipulation process of gypsum products; calculation of recommended water power ratio; process of disinfection of gypsum materials
- 9.3. Definition and classification of impression materials; desirable properties, process of transfer and storage of impression materials
- 9.4. Ideal requirements and manipulation process of impression compound, zinc oxide eugenol impression paste, alginate, elastomeric impression material
- 9.5. Types of dental waxes and manipulation process of modeling wax

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- 9.6. 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
- 9.7. Identification and classification of dental instruments
- 9.8. Classification and types of impression trays; methods of sterilization of impression trays
- 9.9. Various parts of dental chair and their functions
- 9.10. Various positions of the operator and the assistant; various steps of patient preparation before operative procedure; post treatment instructions after various dental procedures
- 9.11. Different methods of saliva control and isolation; cotton roles for saliva control
- 9.12. Cleaning of dental equipment including suction apparatus, amalgamator, scaling machine, autoclave, light cure machine, compressor

#### 10. Prosthodontics

- 10.1. Define partial edentulism
- 10.2. Etiology, clinical features, classification and sequel of partial edentulous situation
- 10.3. Prevention of partial edentulism
- 10.4. Define edentulism
- 10.5. Etiology and clinical features of edentulous situation
- 10.6. Prevention of edentulism
- 10.7. Instruments for various prosthodontic procedures
- 10.8. Sterilization and maintenance of instruments and equipments
- 10.9. Mmanipulation of various materials such as alginate, impression compound, various luting cements, zinc oxide eugenol

### 11. Orthodontic

- 11.1. Squeal of malocclusion
- 11.2. Complication of orthodontic treatment
- 11.3. Limitation of removable appliance
- 11.4. Complication of deep bite
- 11.5. TMJ problem referral
- 11.6. Referral cross bite
- 11.7. Ideal age for orthopedic correction
- 11.8. Immediate treatment required cases for referral
- 11.9. Proclination of upper anterior, orthopaedics problems cross bite
- 11.10. Root resorption

#### 12. Pedodontics

- 12.1. Complication of extraction in children
- 12.2. Treatment modalities in open apex in permanent teeth
- 12.3. Complication of thumb sucking habit
- 12.4. Avulsion of a tooth and storing media
- 12.5. Different space maintainers used in children

### 13. Epidemiology and community diagnosis

- **13.1 Basic epidemiology:** Concepts of Disease, Concepts and method of epidemiology, Infections disease epidemiology
- **13.2 Community Diagnosis:** Introduction to Community Diagnosis, Data collection, Data processing, Community presentation, Report writing
- 13.3 Introduction to Biostatistics and Dental Science

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### 14. Miscellaneous

- 14.1 Dental public health and jurisprudence14.2 Health office management

