

## लोक सेवा आयोग

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

(~~५०~~ प्रश्न × १ अङ्क = ५० अङ्क)

### 1. Health Service System ~~२०~~ — २ Marks / ८ns

- 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

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- 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 — 10 Marks/Ans

- 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 — 4 Marks/Ans

- 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

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- 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 - 2 Marks / 8 ns

- 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 - 4 Marks / 8 ns

- 5.1 Principles of surgery
- 5.2 Local anaesthesia in dentistry - classification, composition, mechanism of action, ideal properties, complications

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- 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** — 8 Marks/Ans

- 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** — 8 Marks/Ans

- 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** — 6 Marks/Ans

- 8.1 Define partial edentulism
- 8.2 Etiology, clinical features, classification and sequel of partial edentulous situation

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- 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

— 4 Marks/ans

### 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

— 2 Marks/ans

### 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

प्रथम पत्रको लार्ग यथासम्भव निम्नानुसार प्रश्नहरु सोधिने छ ।

प्रथम पत्र (वस्तुगत)