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

पाठ्यक्रमको रुपरेखाः – यस पाठ्यक्रम योजनालाई तीन चरणमा विभाजन गरिएकोछ ।

 प्रथम चरण: लिखित परीक्षा
 पूर्णाङ्क: १००

 द्वितीय चरण: लिखित परीक्षा
 पूर्णाङ्क: १००

 अन्तीम चरण: अन्तर्वार्ता
 पूर्णाङ्क: ३०

## लिखित परीक्षा योजना (Written Examination)

पत्र	विषय	पूर्णाङ्क	उत्तीर्णाङ्क	परीः	न्ना प्रणाली	प्रश्न संख्या <sup>x</sup>	समय
						अङ्गभार	
प्रथम चरण							
प्रथम	सामान्यज्ञान र	900	४०	वस्तुगत	बहुवैकल्पिक	२० प्रश्न <sup>x</sup> २	82
	सार्वजनिक ब्यवस्थापन			(Objective)	(MCQs)	अङ्क = ४०	मिनेट
	(General Awareness &						
	Public Management)					d	
	सेवा सम्बन्धी कार्य					३० प्रश्न <sup>x</sup> २	
	ज्ञान (Job Based-					अङ्क = ६०	
	Knowledge)						
द्वितीय चरण							
द्वितीय	सेवा सम्बन्धी कार्य	900	४०	विषयगत	छोटो उत्तर	१२ प्रश्न <sup>x</sup> ५	२ घण्टा
	ज्ञान (Job Based-			(Subjective)	(Short Answer)	अङ्क = ६०	<b>੧</b> ሂ
	Knowledge)			1)2	लामो उत्तर (Long	४ प्रश्न <sup>x</sup> १०	मिनेट
					Answer)	अङ्क = ४०	

## अन्तिम चरणः-

विषय	पूर्णाङ्क	परीक्षा प्रणाली
अन्तर्वार्ता	90	मौखिक अन्तर्वाता (Oral Interview)

#### द्रष्टव्यः-

- यो पाठ्यऋम योजनालाई प्रथम चरण र द्वितीय चरण गरी दुई चरणमा विभाजन गरिएको छ।
- २. लिखित परीक्षाको माध्यम भाषा नेपाली वा अंग्रेजी अथवा नेपाली र अंग्रेजी दुवै हुन सक्नेछ ।
- ३. लिखित परीक्षामा यथासम्भव निम्नानुसार प्रश्नहरु सोधिनेछ ।

प्रथम पत्र	खण्ड	क	खण्ड ख											
एकाइ	٩	२	n	ጸ	ሂ	Ę	(e	5	९	90	99	93	93	१४
प्रश्न संख्या	90	90	γ	n	8	२	n	२	२	m	२	२	٩	२
द्वितीय पत्र	खण्ड क						खण्ड ख							
एकाइ	٩	२	ηγ	8	¥	w	و	ห	९	90	99	٩	२	
प्रश्न संख्या	६ प्रश्न x ५ अङ्ग= ३० अङ्ग र					६ प्रश्न x ५ अङ्क= ३० अङ्क र								
	२ प्रश्न x १० अङ्ग= २० अङ्ग					२ प्रश्न x १० अङ्क= २० अङ्क								

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

- ४. 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।
- प्रथम पत्र र द्वितीय पत्रको लिखित परीक्षा छुट्टा छुट्टै हुनेछ।
- ६. यस पाठ्यक्रम योजना अन्तर्गतका पत्र/विषयका विषयवस्तुमा जेसुकै लेखिएको भएतापिन पाठ्यक्रममा परेका कानून, ऐन, नियम तथा नीतिहरु परीक्षाको विज्ञापन हुदाँका वखत (संशोधन भएका वा संशोधन भई हटाईएका वाथप गरी संशोधन भई) कायम रहेकालाई यस पाठ्कममा परेको सम्झनु पर्दछ ।
- बहुवैकल्पिक प्रश्नहरु हुने परीक्षामा कुनै प्रकारको मेमोरीयुक्त बिद्युतीय उपकरणहरु जस्तैः क्याल्कुलेटर मोवाइल फोन, स्मार्ट घडी लगायतका कुनै पिन बस्तुहरु प्रयोग गर्न पाइने छैन।
- द. विषयगत प्रश्नहरूको हकमा तोकिएको अंकको एउटा लामो प्रश्न वा एउटै प्रश्नका दुई वा दुईभन्दा वढी भाग (Two or more parts of a single question) वा एउटा प्रश्न अन्तर्गत दुई वा बढी टिप्पणीहरू (Short notes) सोधन सिकनेछ।
- ९. परीक्षामा सोधिने प्रश्नसंख्या, अङ्क र अङ्क भार यथासम्भव सम्बन्धित पत्र∕विषयमा दिइए अनुसार हुनेछ ।
- १०. विषयगत प्रश्न हुने पत्र/विषयका प्रत्येक खण्डका लागि छुट्टा-छुट्टै उत्तरपुस्तिकाहरु हुनेछन । परीक्षार्थीले प्रत्येक खण्डका प्रश्नहरुको उत्तर सोही खण्डको उत्तरपुस्तिकामा लेख्न पर्नेछ।
- 99. प्रथम चरणको लिखित परीक्षामा न्युनतम उत्तीर्णाङ्क प्राप्त गरेका उम्मेदवारहरुलाई मात्र द्वितीय चरणको लिखित परीक्षामा सम्मिलत गराइनेछ ।
- 9२. प्रथम चरणको लिखित परीक्षामा प्राप्त गरेको प्राप्ताङ्क र द्वितीय चरणको लिखित परीक्षामा न्युनतम उत्तीर्णाङ्क प्राप्त गरेके उम्मेदवारहरूले प्राप्त गरेको प्राप्ताङ्क जोडी प्राप्त हुने कूल प्राप्ताङ्कको योग्यताका आधारमा बर्णानुक्रम अनुसार लिखित परीक्षाको नितजा प्रकाशन गरिनेछ ।
- १३. लिखित परीक्षाबाट छनौट भएका उम्मेदवारहरुलाई मात्र अन्तर्वार्तामा सिम्मिलित गराइनेछ ।
- १४. प्रथम तथा द्वितीय चरणको लिखित परीक्षाको प्राप्ताङ्क र अन्तर्वार्ताको प्राप्ताङ्कको कुल अङ्कको योगका आधारमा योग्यताऋम निर्धारण गरी माथिल्लो योग्ताऋमका आधारमा अन्तिम नितजा प्रकाशित गरिनेछ ।
- १५. यसभन्दा अगाडि लागु भएको माथी उल्लेखित सेवा समूह/उपसमूहको पाठ्इऋम खारेज गरिएको छ ।
- १६. पाठ्यक्रम लागू मितिः— २०८१।०९।२४

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

## प्रथम पत्र (Paper I):

## सामान्य ज्ञान र सार्वजनिक व्यवस्थापन तथा सेवा सम्बन्धी कार्य-ज्ञान

खण्ड ক (Section A)

## सामान्य ज्ञान र सार्वजनिक व्यवस्थापन

(General Awareness & Public Management) (২০ মুশ্ন \* ২ সক্ক= ४০ সক্ক)

## 1 सामान्य ज्ञान (General Awareness) (१० प्रश्न × २ अङ्क= २० अङ्क)

- 1.1.नेपालको भौगोलिक अवस्था, प्राकृतिक स्रोत र साधनहरू
- 1.2. नेपालको ऐतिहासिक, सांस्कृतिक र सामाजिक अवस्था सम्वन्धी जानकारी
- 1.3. लुम्बिनी प्रदेशको भौगोलिक, ऐतिहासिक, सांस्कृतिक र सामाजिक अवस्था सम्वन्धी जानकारी
- 1.4.नेपालको आर्थिक अवस्था र चालु आविद्यक योजना सम्वन्धी जानकारी
- 1.5. लुम्बिनी प्रदेशको आर्थिक अवस्था र चालु आवधिक योजना सम्वन्धी जानकारी
- 1.6.जैविक विविधता, दिगो विकास, वातावरण प्रदुषण, जलवायु परिवर्तन र जनसंख्या व्यवस्थापन
- 1.7.जनस्वास्थ्य, रोग, खाद्य र पोषण सम्बन्धी सामान्य जानकारी
- 1.8.नेपालको संविधान (भाग १ देखि ५ सम्म र अनुसूचीहरू)
- 1.9. संयुक्त राष्ट्रसंघ र यसका विशिष्टीकृत संस्था सम्बन्धी जानकारी
- 1.10. क्षेत्रीय संगठन (सार्क, बिमस्टेक, आसियान र युरोपियन संघ) सम्वन्धी जानकारी
- 1.11. राष्ट्रिय र अन्तर्राष्ट्रिय महत्वका समसामयिक गतिविधिहरू

## 2 सार्वजनिक व्यवस्थापन (Public Management) (१० प्रश्न × २ अङ्क= २० अङ्क)

- 2.1.कार्यालय व्यवस्थापन (Office Management)
  - 2.1.1. कार्यालयः (Office) परिचय, महत्व, कार्य र प्रकार
  - 2.1.2. सहायक कर्मचारीका कार्य र गुणहरु
  - 2.1.3. कार्यालय स्रोत साधन (Office Resources): परिचय र प्रकार
  - 2.1.4. कार्यालयमा सञ्चारको महत्व, किसिम र साधन
  - 2.1.5. कार्यालय कार्यविधि (Office Procedure): पत्र व्यवहार (Correspondence), दर्ता र चलानी (Registration & Dispatch), परिपत्र (Circular), तोक आदेश (Order), टिप्पणी लेखन र टिप्पणी तयार गर्दा ध्यान दिनुपर्ने कुराहरु
  - 2.1.6. अभिलेख व्यवस्थापन (Record Management)
- 2.2.निजामती सेवा ऐन, २०४९ र नियमावली, २०५० तथा प्रदेश निजामती सेवा ऐन, २०८० र नियमावली, २०८० मा रहेका देहायका व्यवस्थाहरु
  - 2.2.1. निजामती सेवा, प्रदेश निजमती सेवा र स्थानीय सरकारी सेवाको गठन, संगठन संरचना, पदपूर्ति गर्ने तरिका र प्रिक्रियाहरु
  - 2.2.2. कर्मचारीको नियुक्ति, सरुवा, बढुवा, बिदा, विभागीय सजाय अवकाश र सुविधा
  - 2.2.3. कर्मचारीले पालन गर्नुपर्ने आचरण र कर्तव्यहरू

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

- 2.3. सरकारी बजेट, लेखा र लेखापरीक्षण प्रणाली सम्बन्धी सामान्य जानकारी
- 2.4. सार्वजनिक सेवा प्रवाहको अर्थ, सेवा प्रवाह गर्ने निकाय, तरिका र माध्यमहरू
- 2.5.मानव अधिकार, सुशासन र सूचनाको हक सम्बन्धी सामान्य जानकारी
- 2.6. सार्वजनिक बडापत्र (Public/citizen Charter) महत्त्व र आवश्यकता
- 2.7.व्यवस्थापनको अवधारणा तथा सार्वजनिक व्यवस्थापनमा नेतृत्व, निर्देशन, समन्वय, निर्णय प्रिक्रिया, उत्प्रेरणा र नियन्त्रण सम्वन्धी जानकारी
- 2.8.मानवीय मूल्य मान्यता (Human Values), नागरिक कर्तव्य र दायित्व तथा अनुशासन
- 2.9. सार्वजनिक खरिद ऐन,२०६३ (परिच्छेद २)
- 2.10. स्थानीय सरकार सञ्चालन ऐन. २०७४
- 2.11. भ्रष्टाचार निवारण ऐन, २०५९(परिच्छेद २: भ्रष्टाचारको कसुर र सजाय सम्बन्धी ब्यवस्था)
- 2.12. वातावरण संरक्षण ऐन, २०७७
- 2.13. सार्वजनिक खरिद सम्बन्धी प्रदेश नियमावली,२०७६ (ल्मिबनी प्रदेश)
- 2.14. लुम्बिनी प्रदेश सरकार (कार्य विभाजन) नियमावली

# खण्ड ख (Section B) <u>सेवा सम्बन्धी कार्य ज्ञान</u> (Job Based-Knowledge) (३० प्रश्न x २ अङ्क= ६० अङ्क)

#### 3. Health Service System

- 3.1. Health service system in Nepal
- 3.2. History of the development of dental health services in Nepal
- 3.3. Purpose and characteristics of a dental health care system
- 3.4. Ayurvedic, homeopathic and allopathic approaches to dental health care
- 3.5. Introduction and functions of management
- 3.6. Health Management and Dental Health Management
- 3.7. Health Service planning system in Nepal
- 3.8. Types of health service organizations in Nepal including dental health services
- 3.9. Purpose, important and process of Health Management Information System (HMIS), use of the different types of HMIS forms, records and reports
- 3.10. 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
- 3.11. Objectives and activities of national health programmes
- 3.12. National Health Policy and National Oral Health Policy
- 3.13. General knowledge of current periodical plan related to health
- 3.14. Code of conduct for Dental Hygienist and its purpose
- 3.15. Formation, activities and functioning of the Nepal Health Professional Council
- 3.16. Dental public health and jurisprudence

#### 4. **Dental Assisting**

- 4.1. Dental chair
  - 4.1.1. Enlist and identify various parts of dental chair and their functions
  - 4.1.2. Demonstrate the operation of dental chair units into various positions

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

## 4.2. Chair-side assisting

- 4.2.1. Demonstrate various positions of the operator and the assistant
- 4.2.2. Describe various steps of patient preparation before operative procedure
- 4.2.3. Describe patient preparation in special situations including the case of child patient, handicapped patient, apprehensive patient, medically compromised patient, pregnant patient etc.
- 4.2.4. Describe role of dental assisting in special situations including medical emergencies
- 4.2.5. Describe role of dental assisting in special situation like choking, or aspiration of dental instruments/materials by the patient
- 4.2.6. Describe post treatment instructions after various dental procedures

#### 4.3. Saliva control and isolation

- 4.3.1. Enlist different methods of saliva control & isolation
- 4.3.2. Describe use of suction machine for saliva control
- 4.3.3. Describe application of rubber dam for isolation of tooth
- 4.3.4. Prepare cotton roles for saliva control
- 4.4. Maintenance of dental equipment and instruments
  - 4.4.1. Demonstrate cleaning of dental chair
  - 4.4.2. Demonstrate cleaning of dental equipment including suction apparatus, amalgamator, scaling machine, autoclave, light cure machine, compressor etc.
  - 4.4.3. Describe disinfection of water pipe, handpiece chord, drainage system of dental chair unit
  - 4.4.4. Describe air servicing of dental chair unit
  - 4.4.5. 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
  - 4.4.6. 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

## 5. Periodontics

- 5.1. Introduction, scope and historical background of periodontology/periodontics
- 5.2. 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
- 5.3. Definition and functions of periodontal ligament and its fibres with illustrations
- 5.4. Describe cementum and its structure; classify and types of cementum; cementoenamel junction
- 5.5. 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
- 5.6. Classification of gingival and periodontal diseases as described in World Workshop on Periodontal Health 1999
- 5.7. 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
- 5.8. Definition, structure, composition, physiologic properties and microbiology of dental plaque; formation of dental plaque; role of dental plaque in periodontal disease,

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

- association of plaque micro-organisms with periodontal disease, mechanism of inflammatory cell response
- 5.9. Classification, composition and etiologic significance of dental calculus
- 5.10. Aging and its effect on periodontium
- 5.11. Plaque control measures and its significance; classification of plaque control methods; personal oral science methods; use of disclosing agents
- 5.12. 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
- 5.13. Classification of chemical plaque control agents and their mechanism of action
- 5.14. 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
- 5.15. 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
- 5.16. Principles and objective of sharpening; various sharpening stones and materials; sharpening of sickle scalers and curettes

## 6. Oral Pathology and Microbiology

- 6.1. Concept, causes and types of inflammation and abscess
- 6.2. Definition of facial space and enumerate spaces of Oro-facial region; cellulitis and its complications; common dental space infections and its complications;
- 6.3. Ludwig's angina and its complications
- 6.4. Common oral ulcerations and lesions afflicting oral cavity, common viral lesions afflicting oral cavity; various pre-cancerous lesions and conditions
- 6.5. 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
- 6.6. Oral microbiology and normal oral flora of human being from birth to old age
- 6.7. Introduction to micro-organisms (bacteria, virus, fungi, protozoa, amoeba)
- 6.8. Source, types, clinical features and sequelae of infection
- 6.9. Definition of infection control, sterilization and disinfection; various levels of infection control; antiseptic and asepsis
- 6.10. Different methods of sterilization; fumigation procedure and safety factors
- 6.11. Definition and procedures followed in universal precaution
- 6.12. 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
- 6.13. Types of waste management; clinical wastes and procedure of waste management of dental operatory; dental amalgam waste management

#### 7. Oral Medicine and Radiology

- 7.1. Oral medicine definition, scope and clinical application
- 7.2. Principles of oral diagnosis, swelling, ulcer, sinus, fistula, mucosal lesions, pain and TMJ problems definitions

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

- 7.3. Case history and components; physical examination methodologies (general-extra oral, intra oral)
- 7.4. Concepts of provisional diagnosis and differential diagnosis
- 7.5. Clinical chair side investigations and radiological investigations hematological, microbiological, histopathological
- 7.6. Final/confirmed diagnosis formulation of treatment plan referral for opinions
- 7.7. Dental disorders- Developmental malformations, discoloration of teeth
- 7.8. Diseases of the tongue and its manifestations in systemic diseases
- 7.9. Concept of pre-malignancy premalignant lesions and conditions and complications
- 7.10. Oral cancer etiology, epidemiology, screening, clinical features, diagnosis, prevention and management and complications
- 7.11. Diseases of salivary glands and complications
- 7.12. Biologic effects of radiation and radiation protection
- 7.13. Principles of radiotherapy preparation of patient for oral radiotherapy, management of post radiation oral complications
- 7.14. Basic radiographic techniques IOPA, OPG, Lateral Ceph
- 7.15. Advanced radiographic techniques panoramic radiography, cephalometric radiography, CT scans, radionuclide diagnosis, digital radiography, applications of imaging in oral medicine MRI, ultra sound

#### 8. Oral and Maxillofacial Surgery

- 8.1. Principles of surgery
- 8.2. Local anesthesia in dentistry classification, composition, mechanism of action, ideal properties, complications
- 8.3. Type of mandible and maxilla fracture and its basic management and complications
- 8.4. Exodontia and its complications
- 8.5. Impacted teeth, wisdom teeth and its significance with complications
- 8.6. Oro-facial pain in brief
- 8.7. Common medical emergencies, odontogenic space infections in brief, fungal and viral infections of head and neck in dental practice and their complications
- 8.8. Incisional and excisional biopsy
- 8.9. Assisting Dental Surgeons during various dental procedures

## 9. Conservative and Endodontics

- 9.1. Definition, etiology, clinical features, sequelae and prevention of dental caries
- 9.2. Definition, causes, clinical features and treatment options of attrition, abrasion and erosion
- 9.3. Diseases of pulp and periapical tissues
- 9.4. Classification, etiology, clinical features and sequelae of pulp and periapical tissues
- 9.5. Classify dental injuries and storage of avulsed tooth following tooth avulsion
- 9.6. Classify instruments for restorative and endodontic procedures
- 9.7. Discuss the manipulation of various materials such as amalgam, composite, cements, calcium hydroxide, sealers

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

- 10.1. Commonly used dental materials; importance of disinfection of dental materials; requirement of shelve life and storage of dental materials
- 10.2. Gypsum products and its application in dentistry; manipulation process of gypsum products; calculation of recommended water power ratio; process of disinfection of gypsum materials

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

- 10.3. Definition and classification of impression materials; desirable properties, process of transfer and storage of impression materials
- 10.4. Ideal requirements and manipulation process of impression compound, zinc oxide eugenol impression paste, alginate, elastomeric impression material
- 10.5. Types of dental waxes and manipulation process of modeling wax
- 10.6. 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
- 10.7. Identification and classification of dental instruments
- 10.8. Classification and types of impression trays; methods of sterilization of impression trays
- 10.9. Various parts of dental chair and their functions
- 10.10. Various positions of the operator and the assistant; various steps of patient preparation before operative procedure; post treatment instructions after various dental procedures
- 10.11. Different methods of saliva control and isolation; cotton roles for saliva control
- 10.12. Cleaning of dental equipment including suction apparatus, amalgamator, scaling machine, autoclave, light cure machine, compressor

#### 11. Prosthodontics

- 11.1. Define partial edentulism
- 11.2. Etiology, clinical features, classification and sequel of partial edentulous situation
- 11.3. Prevention of partial edentulism
- 11.4. Define edentulism
- 11.5. Etiology and clinical features of edentulous situation
- 11.6. Prevention of edentulism
- 11.7. Instruments for various prosthodontic procedures
- 11.8. Sterilization and maintenance of instruments and equipments
- 11.9. Manipulation of various materials such as alginate, impression compound, various luting cements, zinc oxide eugenol

#### 12. Orthodontic

- 12.1. Squeal of malocclusion
- 12.2. Complication of orthodontic treatment
- 12.3. Limitation of removable appliance
- 12.4. Complication of deep bite
- 12.5. TMJ problem referral
- 12.6. Referral cross bite
- 12.7. Ideal age for orthopedic correction
- 12.8. Immediate treatment required cases for referral
- 12.9. Proclamation of upper anterior, orthopedics problems cross bite
- 12.10. Root resorption

#### 13. **Pedodontics**

- 13.1. Complication of extraction in children
- 13.2. Treatment modalities in open apex in permanent teeth
- 13.3. Complication of thumb sucking habit
- 13.4. Avulsion of a tooth and storing media
- 13.5. Different space maintainers used in children

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

## 14. 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



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

## द्वितीय पत्र (Paper II):-

# सेवा सम्बन्धित कार्य ज्ञान (Job Based-Knowledge)

#### खण्ड क (Section A)

## ५० अङ्क

#### 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
- 1.16. Dental public health and jurisprudence

#### 2. **Dental Assisting**

- 2.1. Dental chair
  - 2.1.1. Enlist and identify various parts of dental chair and their functions
  - 2.1.2. Demonstrate the operation of dental chair units into various positions
- 2.2. Chair-side assisting
  - 2.2.1. Demonstrate various positions of the operator and the assistant
  - 2.2.2. Describe various steps of patient preparation before operative procedure
  - 2.2.3. Describe patient preparation in special situations including the case of child patient, handicapped patient, apprehensive patient, medically compromised patient, pregnant patient etc.
  - 2.2.4. Describe role of dental assisting in special situations including medical emergencies
  - 2.2.5. Describe role of dental assisting in special situation like choking, or aspiration of dental instruments/materials by the patient
  - 2.2.6. Describe post treatment instructions after various dental procedures
- 2.3. Saliva control and isolation
  - 2.3.1. Enlist different methods of saliva control & isolation
  - 2.3.2. Describe use of suction machine for saliva control
  - 2.3.3. Describe application of rubber dam for isolation of tooth
  - 2.3.4. Prepare cotton roles for saliva control
- 2.4. Maintenance of dental equipment and instruments
  - 2.4.1. Demonstrate cleaning of dental chair
  - 2.4.2. Demonstrate cleaning of dental equipment including suction apparatus, amalgamator, scaling machine, autoclave, light cure machine, compressor etc.

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

- 2.4.3. Describe disinfection of water pipe, handpiece chord, drainage system of dental chair unit
- 2.4.4. Describe air servicing of dental chair unit
- 2.4.5. 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
- 2.4.6. 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

#### 3. Periodontics

- 3.1. Introduction, scope and historical background of periodontology/periodontics
- 3.2. 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
- 3.3. Definition and functions of periodontal ligament and its fibres with illustrations
- 3.4. Describe cementum and its structure; classify and types of cementum; cementoenamel junction
- 3.5. 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
- 3.6. Classification of gingival and periodontal diseases as described in World Workshop on Periodontal Health 1999
- 3.7. 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
- 3.8. 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
- 3.9. Classification, composition and etiologic significance of dental calculus
- 3.10. Aging and its effect on periodontium
- 3.11. Plaque control measures and its significance; classification of plaque control methods; personal oral science methods; use of disclosing agents
- 3.12. 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
- 3.13. Classification of chemical plaque control agents and their mechanism of action
- 3.14. 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
- 3.15. 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
- 3.16. Principles and objective of sharpening; various sharpening stones and materials; sharpening of sickle scalers and curettes

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

#### 4. Oral Pathology and Microbiology

- 4.1. Concept, causes and types of inflammation and abscess
- 4.2. Definition of facial space and enumerate spaces of Oro-facial region; cellulitis and its complications; common dental space infections and its complications;
- 4.3. Ludwig's angina and its complications
- 4.4. Common oral ulcerations and lesions afflicting oral cavity, common viral lesions afflicting oral cavity; various pre-cancerous lesions and conditions
- 4.5. 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
- 4.6. Oral microbiology and normal oral flora of human being from birth to old age
- 4.7. Introduction to micro-organisms (bacteria, virus, fungi, protozoa, amoeba)
- 4.8. Source, types, clinical features and sequelae of infection
- 4.9. Definition of infection control, sterilization and disinfection; various levels of infection control; antiseptic and asepsis
- 4.10. Different methods of sterilization; fumigation procedure and safety factors
- 4.11. Definition and procedures followed in universal precaution
- 4.12. 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
- 4.13. Types of waste management; clinical wastes and procedure of waste management of dental operatory; dental amalgam waste management

#### 5. Oral Medicine and Radiology

- 5.1. Oral medicine definition, scope and clinical application
- 5.2. Principles of oral diagnosis, swelling, ulcer, sinus, fistula, mucosal lesions, pain and TMJ problems definitions
- 5.3. Case history and components; physical examination methodologies (general-extra oral, intra oral)
- 5.4. Concepts of provisional diagnosis and differential diagnosis
- 5.5. Clinical chair side investigations and radiological investigations hematological, microbiological, histopathological
- 5.6. Final/confirmed diagnosis formulation of treatment plan referral for opinions
- 5.7. Dental disorders- Developmental malformations, discoloration of teeth
- 5.8. Diseases of the tongue and its manifestations in systemic diseases
- 5.9. Concept of pre-malignancy premalignant lesions and conditions and complications
- 5.10. Oral cancer etiology, epidemiology, screening, clinical features, diagnosis, prevention and management and complications
- 5.11. Diseases of salivary glands and complications
- 5.12. Biologic effects of radiation and radiation protection
- 5.13. Principles of radiotherapy preparation of patient for oral radiotherapy, management of post radiation oral complications
- 5.14. Basic radiographic techniques IOPA, OPG, Lateral Ceph
- 5.15. Advanced radiographic techniques panoramic radiography, cephalometric radiography, CT scans, radionuclide diagnosis, digital radiography, applications of imaging in oral medicine MRI, ultra sound

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

## 6. Oral and Maxillofacial Surgery

- 6.1. Principles of surgery
- 6.2. Local anesthesia in dentistry classification, composition, mechanism of action, ideal properties, complications
- 6.3. Type of mandible and maxilla fracture and its basic management and complications
- 6.4. Exodontia and its complications
- 6.5. Impacted teeth, wisdom teeth and its significance with complications
- 6.6. Oro-facial pain in brief
- 6.7. Common medical emergencies, odontogenic space infections in brief, fungal and viral infections of head and neck in dental practice and their complications
- 6.8. Incisional and excisional biopsy
- 6.9. Assisting Dental Surgeons during various dental procedures

## खण्ड ख (Section B):- ५० अङ्

#### 7. Conservative and Endodontics

- 7.1. Definition, etiology, clinical features, sequelae and prevention of dental caries
- 7.2. Definition, causes, clinical features and treatment options of attrition, abrasion and erosion
- 7.3. Diseases of pulp and periapical tissues
- 7.4. Classification, etiology, clinical features and sequelae of pulp and periapical tissues
- 7.5. Classify dental injuries and storage of avulsed tooth following tooth avulsion
- 7.6. Classify instruments for restorative and endodontic procedures
- 7.7. Discuss the manipulation of various materials such as amalgam, composite, cements, calcium hydroxide, sealers

## 8. Dental Materials, Instruments and Dental Assisting

- 8.1. Commonly used dental materials; importance of disinfection of dental materials; requirement of shelve life and storage of dental materials
- 8.2. Gypsum products and its application in dentistry; manipulation process of gypsum products; calculation of recommended water power ratio; process of disinfection of gypsum materials
- 8.3. Definition and classification of impression materials; desirable properties, process of transfer and storage of impression materials
- 8.4. Ideal requirements and manipulation process of impression compound, zinc oxide eugenol impression paste, alginate, elastomeric impression material
- 8.5. Types of dental waxes and manipulation process of modeling wax
- 8.6. 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
- 8.7. Identification and classification of dental instruments
- 8.8. Classification and types of impression trays; methods of sterilization of impression trays
- 8.9. Various parts of dental chair and their functions
- 8.10. Various positions of the operator and the assistant; various steps of patient preparation before operative procedure; post treatment instructions after various dental procedures
- 8.11. Different methods of saliva control and isolation; cotton roles for saliva control
- 8.12. Cleaning of dental equipment including suction apparatus, amalgamator, scaling machine, autoclave, light cure machine, compressor

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

#### 9. **Prosthodontics**

- 9.1. Define partial edentulism
- 9.2. Etiology, clinical features, classification and sequel of partial edentulous situation
- 9.3. Prevention of partial edentulism
- 9.4. Define edentulism
- 9.5. Etiology and clinical features of edentulous situation
- 9.6. Prevention of edentulism
- 9.7. Instruments for various prosthodontic procedures
- 9.8. Sterilization and maintenance of instruments and equipments
- 9.9. Manipulation of various materials such as alginate, impression compound, various luting cements, zinc oxide eugenol

#### 10. Orthodontic

- 10.1. Squeal of malocclusion
- 10.2. Complication of orthodontic treatment
- 10.3. Limitation of removable appliance
- 10.4. Complication of deep bite
- 10.5. TMJ problem referral
- 10.6. Referral cross bite
- 10.7. Ideal age for orthopedic correction
- 10.8. Immediate treatment required cases for referral
- 10.9. Proclamation of upper anterior, orthopedics problems cross bite
- 10.10. Root resorption

#### 11. Pedodontics

- 11.1. Complication of extraction in children
- 11.2. Treatment modalities in open apex in permanent teeth
- 11.3. Complication of thumb sucking habit
- 11.4. Avulsion of a tooth and storing media
- 11.5. Different space maintainers used in children

## 12. Epidemiology and community diagnosis

- 12.1. Basic epidemiology: Concepts of Disease, Concepts and method of epidemiology, Infections disease epidemiology
- 12.2. Community Diagnosis: Introduction to Community Diagnosis, Data collection, Data processing, Community presentation, Report writing
- 12.3. Introduction to Biostatistics and Dental Science

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