

Pokhara University Teaching Hospital
Curriculum for Dental Hygienist Level Examination

For Written Examination

Full Marks:65

There shall be 3 hrs. written examination based on the following syllabus

Group A: Written Examination

1. General Health Service System (10)

Health service system in Nepal, History of the development of dental health services in Nepal, Purpose and characteristics of a dental health care system, Ayurvedic, homeopathic and allopathic approaches to dental health care, Introduction and functions of management, Health Management and Dental Health Management, Health Service planning system in Nepal, Types of health service organizations in Nepal including dental health service, Purpose, important and process of Health Management Information System (HMIS), use of the different types of HMIS forms, records and reports, 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 Objectives and activities of national health programmes National Health Policy and National Oral Health Policy, General knowledge of current periodical plan related to health, Code of conduct for Dental Hygienist and its purpose, Formation, activities and functioning of the Nepal Health Professional Council

2. Periodontics (10)

Introduction, scope and historical background of periodontology/periodontics 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, Definition and functions of periodontal ligament and its fibres with illustrations, Describe cementum and its structure; classify cementum; cemento-enamel junction, 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 of gingiva, Classification of gingival and periodontal diseases, 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, 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, Classification, composition and etiologic significance of dental calculus, Aging and its effect on periodontium, Plaque control measures and its significance; classification of plaque control methods; personal oral hygiene methods; use of disclosing agents, Toothbrush 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 dental floss, interdental brushes and gum massage / gum stimulator, Classification of chemical plaque control agents and their mechanism of action, Periodontal instrument design and classification; various diagnostic instruments; various manual periodontal instruments including hoe, files; various scalers, curets and root planing instruments; sonic, ultrasonic and piezo-electric scalers, 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, Principles and objective of sharpening; various sharpening stones and materials; sharpening of sickle scalers and curettes

3. Oral Pathology and Microbiology (10)

Concept, causes and types of inflammation and abscess, 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, Common oral ulcerations and lesions afflicting oral cavity; common viral lesions afflicting oral cavity; various pre-cancerous lesions and conditions, 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, Oral microbiology and normal oral flora of human being from birth to old age, Introduction to micro-organisms (bacteria, virus, fungi, protozoa, amoeba), Source, types, clinical features and sequelae of infection, Definition of infection control, sterilization and disinfection; various levels of infection control; antiseptic and asepsis, Different methods of sterilization; fumigation procedure and safety factors, Definition and procedures followed in universal precaution, Concept and process of hand scrubbing in operatory with their significance; self-protection in operatory; process of decontamination of gloves, linens and surgical drapes; process of decontamination of dental equipment and instruments including dental chair, hand piece, suction apparatus, x-ray films, Types of waste management; clinical wastes and procedure of waste management of dental operatory; dental amalgam waste management

4. Oral Medicine and Radiology (10)

Oral medicine - definition, scope and clinical application, Principles of oral diagnosis, swelling, ulcer, sinus, fistula, mucosal lesions, pain and TMJ problems definitions, Case history and components; physical examination methodologies (general extra-oral, intra oral), Concepts of provisional diagnosis and differential diagnosis, Clinical chair side investigations and radiological investigation-haematological, microbiological, histopathological Final/confirmed diagnosis formulation of treatment plan referral for opinions, Dental disorders- Developmental malformations, discoloration of teeth, Diseases of the tongue and its manifestations in systemic diseases, Concept of pre-malignancy – premalignant lesions and conditions and complications, Oral cancer etiology, epidemiology, screening, clinical features, diagnosis, prevention and management and complications, Diseases of salivary glands and complications, Biologic effects of radiation and radiation protection, Principles of radiotherapy –

preparation of patient for oral radiotherapy, management of post radiation oral complications, Basic radiographic techniques - IOPA, OPG, Lateral Cephalogram, Advanced radiographic techniques -, CT scans, radionucleide diagnosis, digital radiography, applications of imaging in oral medicine - MRI, ultra sound

5. Dental Materials, Instruments and Dental Assisting (15)

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

6. Concepts on Oral and maxillofacial surgery, conservative and endodontics, prosthodontics, orthodontic and pedodontics (10)

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For Practical Examination

Full Marks: 35

Practical examination based on the following syllabus

Group B: Practical Examination

1. Assessment of vital signs
2. History taking
3. Instrumentation (Steps of various dental procedures) and dental materials (Its uses and manipulation)
4. Dental caries, Periodontal diseases and treatment
5. Brushing and Flossing technique
6. Sterilization Techniques