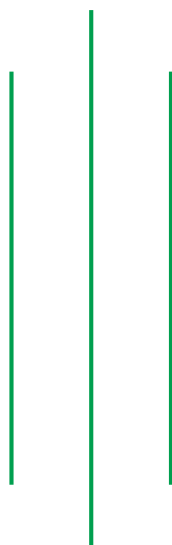


Syllabus for Licensing Examination of Certificate in Dental Hygiene 2021



Nepal Health Professional Council

Bansbari, Kathmandu
First Revision 2022
Second Revision 2023

S.N	Subjects	Marks
1	Core subject <ul style="list-style-type: none"> ▪ Human Anatomy and Physiology5 Marks ▪ Oral Anatomy & physiology.....5 Marks ▪ Oral pathology and microbiology.....5 Marks ▪ Dental pharmacology.....5 Marks 	20%
2	Clinical <ul style="list-style-type: none"> ▪ Basic Periodontology I..... 12 Marks ▪ Basic Periodontology II.....13 Marks ▪ Dental material, instruments and assisting.....8 Marks ▪ Dental Radiography and photography.....7 Marks ▪ Basic Medical Procedure and first aid.....5 Marks ▪ Dental Public health.....15 Marks 	60%
3	Community <ul style="list-style-type: none"> ▪ Health education.....3 Marks ▪ Epidemiology and community diagnosis.....7 Marks ▪ Office health management.....5 Marks ▪ Environmental health.....3 Marks ▪ Food and nutrition.....2 Marks 	20%
	Total	100%

1. Core Subjects

S N	Core Subject	Sub Unit	Marks
1	Human Anatomy and Physiology	<ul style="list-style-type: none"> • Introduction of Anatomy & physiology • Structure and function of the Skin and integumentary system • Skeletal system • Muscular system • Nervous system • Somatic and special senses • Endocrine system • Blood • Cardiovascular system • Lymphatic system and immunity • Digestive system • Respiratory system • Urinary system • Male reproductive system • Female reproductive system • Human Growth and Development. 	5
2	Oral Anatomy and Physiology	<ul style="list-style-type: none"> • Definition of : Anatomy, Histology, Osteology, Embryology & Physiology • Terminologies: Mesial, Distal, Buccal, Labial, Lingual, Palatal, Occlusal, Incisal, Dorsal, Ventral etc • Structure, Part and Attachment and Position mandible and maxilla • Facial muscles • Muscle of mastication • Structure and movement of T.M.J • Various parts of Oral cavity • Describe cheek, Palates, floor of mouth, vestibule and lips • Tongue structure and muscles of tongue • Test bud and function of tongue • Anatomy of tooth • Mix dentition • Tooth numbering system • Growth and development of tooth • Cranial nerve and their function • Branches and function of trigeminal and facial nerve. • Structure and position of parotid, Sub-mandibular and sub-lingual gland • Saliva and its types, function and composition. 	5

3	Oral Pathology and Microbiology	<ul style="list-style-type: none"> • Dental caries • Inflammation • Abscess, Cyst, Tumor • Oral lesion & Condition • Regressive alteration of tooth, • Classification of bacteria & virus • Microbiology, branches of microbiology • Infection, Universal Precaution, Hand washing, self-protection • Sterilization and Disinfections 	5
4	Dental Pharmacology	<ul style="list-style-type: none"> • Pharmacology & drugs, NHAID & Steroid (Anti inflammatory drugs) • Classification of drugs Antibiotics, effects, side effects, mode of action each • Routes of drug administration, Advantage and disadvantages of Various Routes of Administration • Pharmacodynamics and Pharmacokinetics of Drugs • Local Anesthesia • Prescription writing • Composition of Dentifrices, Properties and types of dentifrices. Functions of dentifrices • Different astringents & topical anesthetic agents • Definition of local Anesthesia, Ideal requirements of local Anesthesia, Composition of local Anesthesia, uses of local Anesthesia, Classification of local Anesthesia • Instruments used to deliver local anesthesia • Adverse reaction (Toxicity) 	5

2. Clinical

S N	Clinical Subject	Sub Unit	Marks
1	Basic Periodontology I	<ul style="list-style-type: none"> • Gingiva and Normal clinical and microscopic features of gingival • Gingival connective tissue & gingival fibers • Development of gingival sulcus • Blood supply, lymphatic drainage and nerve supply of gingiva • Correlation of normal clinical and microscopic features of gingiva • Dental plaque, Structure , formation and composition of dental plaque, • Physiological properties of dental plaque, • Role of dental plaque in periodontal disease. • Dental Calculus and Classification of dental calculus • Composition of dental calculus • Mechanism of formation of dental calculus • Mechanism of attachment of calculus to tooth surface • Etiologic significance of dental calculus • Types of tooth brush, Use of powdered tooth brush • Dentifrices and its composition • Composition & mechanism of action of fluoridated toothpastes • Composition & mechanism of action of desensitizing toothpastes • Various types of tooth brushing methods and their significance in different patient. • Oral irrigation device, Periodontal pocket irrigation • Home irrigation devices, Instruments and medicaments used in oral irrigation. • Instrument design and classification • Describe various diagnostic instruments • Describe various manual periodontal instruments • Describe various scalers, Currets and root planning instruments • Describe sonic, ultrasonic & piezo-electric scalers • Describe anatomic descriptions and considerations during periodontal instrumentation • Describe patient and operator position • Describe instrument grasp • Describe establishing finger rests Describe instrument angulations, activation and adaptation, 	12

		<ul style="list-style-type: none"> • Describe various strokes of using manual instruments, Instrument sharpening, • Principles and objective of sharpening, • Various sharpening stones and material, Sharpening of manual periodontal instruments. 	
2	<p style="text-align: center;">Basic Periodontology II</p>	<ul style="list-style-type: none"> • Gingival inflammation, • Various stages of gingival inflammation, • Definition of gingivitis, • Course, duration and distribution of gingivitis, • Clinical features of gingivitis, • Definition and classification of gingival enlargement, • Location and distribution of gingival enlargement, • Types of gingival enlargement, • Gingival enlargements associated with systemic diseases, • Neoplastic gingival enlargement, • false enlargement • Periodontitis and classification of periodontitis, • Progression of periodontitis, • Chronic periodontitis, • Aggressive periodontitis, • Definition of and classification of periodontal pocket, Clinical features, Pathogenesis and histopathology, • Micro topography of gingival wall of the pocket , • Pocket contents, • Periodontal disease activity, • Loss of attachment and bone loss, • Difference between infrabony and suprabony pockets, • Sequelae of periodontal pocket, • Periodontal abscess • periodontal cyst: • Diagnosis and describe routine procedures of diagnosis, • Case history taking, • Clinical examination, • Methods of probing, • Types of probes, • Routine investigative methods, prognosis in periodontics, • Types of prognosis various phases in treatment planning of periodontal disease, • Definition of scaling and root planning, • Aims and objective of scaling and root planning, 	13

		<ul style="list-style-type: none"> • Indications and contraindications of scaling and root planning, • Complications of improper scaling, • Tooth polishing, • Topical fluoride application, • Follow up, Referral 	
3	Dental Material, Instruments and Assisting	<ul style="list-style-type: none"> • Common dental materials • Biocompatibility of materials • Gypsum products • Impression Compound • Zinc Oxide Eugenol • Zinc Oxide • Zinc Phosphate • Glass Ionomer Cement • Zinc Polycarboxylate • Amalgam • Bases and liners, Varnish • Alginate • Composite Resin • Calcium Hydroxide • Acrylic Resin, Dental Wax, Dental model, cast and die materials • Impression trays, Diagnostic Instrument, Restorative Instrument, Endodontic Instrument, Periodontal Instrument, Prostodontics Instruments, Orthodontic Instruments, Oral Surgery Instruments. • Parts of Dental Chair, Disinfection and maintenance of Dental Chair • Different Operator and assistant positions, Preparation of patients, Behavioral management of special need patients, Dental Emergencies, Pre- and Post- treatment Instructions, four- and six- handed dentistry • Isolation of Working Field in Mouth 	8

4	<p style="text-align: center;">Dental Radiography and Photography</p>	<ul style="list-style-type: none"> • Types of radiograph in dentistry along with its uses, • Various use of X-ray, Use of, • Use and importance/application of X-Ray in Dentistry, • Types of radiograph in dentistry along with its uses, • Function of X-ray Film & Developer Solution, • Various film Positioning devices, • Various types of X-ray Developing machine, • Importance/application of Voltage • Stabilizer in X-ray Machine , • List down dental X-ray accessories • e.g. Collimation, grid, intensifying screen , • Various Position of X-ray Tube (Cone) during IOPA x-ray taking , • Relation between X-Ray Cone and Film distance and film holding methods, • X-ray taking methods of upper Centrals & Laterals incisors • X-ray taking methods of upper canine , • X-ray taking methods of upper Premolars • X-ray taking methods of upper Molars • X-ray taking methods of upper III Molars, • X-ray taking methods of lower Centrals & Laterals, • X-ray taking methods of lowers canines, • X-ray taking methods of lowers premolars, • X-ray taking methods of lowers Molars, • X-ray taking methods of Lower III molars, • Lateral oblique view x-ray taking, • Procedure of TMJ view x-ray taking, • Procedure of PNS view-ray taking, • Composition and function of Developer Solution. • Composition of function of Fixture Solution, • Methods of preparing Developing Solution, • Methods of preparing Fixture Solution, • Requirement of X-ray Developing Room or Box, Steps of X-ray processing. • Difference between Intra Oral and Extra Oral Technique, • Basic Steps of Intra oral photographic technique of, Frontal View, Right Buccal View, Left Buccal View, Maxillary Occlusal, Mandibular Occlusal, • Basic Steps of Extra oral photographic technique of, Full Face View, Profile View 	7
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5	<p style="text-align: center;">Basic Medical Procedure and First Aid</p>	<ul style="list-style-type: none"> • Process and equipment's required for History taking & physical Examination, • Purpose of the history & physical. various routes of medication, "5 rights" in the administration of all medicines. • Procedures for administering IM and IV medicines, or beginning IV fluids, • According to guidelines. Principles and procedures for safe needle disposal, Technique of one handed recapping, • To use when a safe needle disposal, container is not readily available. Safe needle management. • Risks of administering drugs directly into the vein. Initial actions of the first aider. • Essential principles of first aid.ABC's of vital functions, airway clear, breathing adequate, circulation and cardiac function good, Signs of common causes of unconsciousness. • Management of unconscious person. Indication of CPR, Process of CPR, Complication of CPR, Difference between CPR procedure for adult, child, infant, pregnant woman. • Management and referral system Concept of triage, Management and referral system. 	5
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6	Dental Public Health	<ul style="list-style-type: none"> • Anaphylactic Shock, Syncope, Seizures • Bleeding exodontias • Explain indications, contraindications of extraction procedure • Take brief history of patient • Preparation for carrying out extraction, Complications of tooth extraction & its management • Post extraction care • Referral procedure of extraction • Define local anesthesia, classify • study composition, uses & complications in detail • Explain the debridement or irrigation of socket • Atraumatic Restorative Treatment (ART) • List instrument & material used in ART • ART technique, Advantages and limitations of ART • Infection control • Definition of Immunity • List the factors affecting disease • Enumerate the Transmissible Infections in Dentistry • List the categories of Task in relation to risk • Personal barrier technique for infection control • Disposal of clinical waste Indices • List and discuss the indices used in Oral Hygiene Assessment • Gingival Diseases • Periodontal Disease • Dental Caries and Treatment Needs, DMFT , • Introduction of Fluoride • Sources of Fluoride for adults and children, • Metabolism of Fluoride • Mechanism of Action of Fluorides in Caries Reduction • List the Fluoride delivery methods • List the Topical fluorides used in Preventive Dentistry • List the Fluoride vehicles, Modes of Action of Fluoride • Briefly discuss Toxicity of fluoride • Briefly discuss Community water fluoridation and school water fluoridation. 	15
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3. Community

SN	Community Subject	Sub Unit	Marks
1	Health Education	<ul style="list-style-type: none"> • Overview of health education • Fundamental Factors of Health Education • Methods of Health Education • Media of Health Education • Planning of Health Education Programmes, Implementation. of Health Education Programs • Evaluation of Health Education Programmes • Health Promotion, Applied Health Education 	3
2	Epidemiology and Community Diagnosis	<ul style="list-style-type: none"> • Natural history of disease • Control, elimination, eradications & surveillance • Tools (rate, ratio, proportion) and common measurements (eg. mortality, morbidity, disability) • Determinants of health i.e. health related factors) used in an epidemiological study. • Common prevalent disease in Nepal. • Community diagnosis and clinical diagnosis. • Incubation period and communicable period of common diseases. 	7
3	Office Health Management	<ul style="list-style-type: none"> • Community Health Diagnosis & Health Profile • Micro Planning of Health Programme • Supervision, Monitoring and Evaluation of Health Programme • Health Management Information System (HMIS) • Planning and Management of Camps • Cold Chain Management, Health Training Management in different settings • Logistic Management <p>Organizational Structure and Function of</p> <ul style="list-style-type: none"> • Ministry of Health and Population (MOHP), Department of Health Service (DoHS), • Provincial Health Directorate (PHD) • Health Office (HO) • Primary Health Care Center (PHCC) • Health Post (HP) • Basic Health service Centre (BHSC) • Nepal Health Professional Council Act, 2053 and Regulation, 2056 	5

4	Environmental Health	<ul style="list-style-type: none"> • Water Purification • Waste Management • Food Hygiene • Sanitation of public places • Health Hazards • Sanitary Latrines • Basic Measures in Controlling Rodents, • Medical Importance and Measures of Controlling Common Vectors and Insects 	3
5	Food and Nutrition	<ul style="list-style-type: none"> • Role nutrition plays in periodontal health and diseases • Common sign and symptoms of xerostomia and glossitis • Different factors contributing to xerostomia and glossitis • Determination of appropriate dietary recommendations for a patient with xerostomia and removable appliances • Dietary guidelines to be given to a new denture patient both pre and post insertion • Nutritional deficiencies and their impact of tooth and oral development • List various nutrients that are usually supplemented during pregnancy and lactation 	2