

## **DETAILED SYLLABUS FOR THE POST OF DENTAL HYGIENIST GRADE II IN MEDICAL EDUCATION**

**(Cat.No.: 205/2020, 215/2021, 545/2022, 740/2022)**

**(Total Marks – 100)**

### **MODULE No I – ANATOMY ( 10 marks)**

- General structure of mucous membrane (tongue, pharynx, lips)
- General structure of bones, muscles, blood vessels, lymphatics, glands and nerves.
- Blood and nerve supply in relation to face in general.
- Blood and nerve supply in relation to teeth and associated structures.
- Elementary knowledge of development of the jaws and teeth
- Eruption, resorption & occlusion of teeth
- Relationship of teeth with investing tissues
- Muscles of mastication and facial expression
- Temporomandibular articulation
- Course and distribution of V<sup>th</sup> and VII<sup>th</sup> Cranial nerves

### **MODULE No II – PHYSIOLOGY ( 10 marks)**

- Cell structure of the human body
- Brief description of the histology and functions of various dental and oral tissues eg. Gingiva, Periodontal membrane, Alveolar process, cementum, Enamel, Dentin, Nasmyths membrane, pulp etc.
- Salivary glands ducts and Composition and function of saliva
- Blood : Composition& functions

- Mastication, deglutition & Phonation.
- General outlines of the physiological processes of the human body-particularly circulatory.

**MODULE No III – PHARMACOLOGY (10 marks)**

- Gen: Pharmacology – Pharmacodynamics, kinetics and mechanism of action of drugs
- Adverse drug reactions
- Local anesthetic agents
- Analgesics – NSAIDs & Opioids
- Anti-bacterial, Antiviral & Antifungal drugs
- Brief description, nomenclature, derivation, dosage, pharmacological action and therapeutic uses of drugs commonly used in dentistry-  
  - Mouthwashes, Dentifrices, Obtundents, Disclosing agents
  - Gargles etc.

**MODULE No IV – GENERAL PATHOLOGY & BACTERIOLOGY (10 marks)**

- General principles of pathology - Inflammation degeneration and
- Neoplasm with reference to oral cavity
- Elementary knowledge of Bacteriology, Asepsis, Infection, Immunity
- Pathology and Bacteriology of Dental Caries and Gingival infections
- Oral manifestation of systemic diseases like diabetes, syphilis, anaemia, vitamin deficiencies and infectious diseases

**MODULE No V – ORAL / DENTAL PATHOLOGY (10 marks)**

- Application of general principles of pathology to tooth and surrounding tissues
- Dental anomalies
- Dental formula and tooth numbering system
- Histology of enamel, types of dentin, cellular & acellular cementum

- Composition and functions of saliva
- Zones of pulp
- Gingiva
- ANUG, Dug induced gingival enlargement
- Leukoplakia , OSMF
- Regressive alterations of teeth

**MODULE No VI – FOOD AND NUTRITION (10 marks)**

- Basic food chemistry in relation to general and oral health
- Physical nature of diet in prevention of dental diseases
- Carbohydrates, fats, proteins, vitamins, minerals and water in relation to dental and oral health
- General food requirements for growth, maintenance and repair of the body
- Assessment & charting of individual diet & counseling
- Effect of malnutrition on oral health

**MODULE No VII – DENTAL HYGIENE AND ORAL PROPHYLAXIS (10 marks)**

- Definition of hygiene
- Objectives of dental hygiene
- Oral prophylaxis – various methods, tooth polishing
- Stains on teeth – extrinsic, intrinsic and their management
- Dental plaque
- Dental calculus
- Brief description and the role of Prophylaxis in Gingivitis, Periodontitis, Periodontal and Alveolar abscess

- Plaque control – mechanical & chemical
- Mouthwashes – Chlorhexidine
- Brushing techniques

**MODULE No VIII – DENTAL HEALTH EDUCATION, COMMUNITY/  
PUBLIC HEALTH DENTISTRY, PREVENTIVE DENTISTRY (10 marks)**

- Definitions of Health and Dental Health
- Aims and objectives of Dental Health Education
- Dental health and children
- Dental health education-parents, mothers (anti and post-natal), infants pre-school
- Children and grownup handicapped children
- Periodontal diseases – Etiology and prevention
- Saliva in relation to dental health and disease
- Dietary habits and dental health
- Habits and malocclusion
- Oral cancer- Etiology and prevention
- Brief outline of historical background of public health, history of dentistry and public Health services, dental health team in relation to community health

**MODULE No IX – DENTAL MATERIALS (10 marks)**

- Gypsum products, waxes, investing materials and various filling materials - temporary and permanent
- Composition, chemistry and manipulation of dental cements – old and new generations
- Composite resins, dental amalgam, direct filling gold, waxes

- Root canal instruments
- Composition, properties and manipulation Impression materials – Rigid, elastic & elastomers
- Denture base resins
- Implant biomaterials, MFP materials
- Disinfection of casts

**MODULE No X – DENTAL ETHICS, JURISPRUDENCE AND ORIENTATION IN DENTISTRY, DENTAL RADIOLOGY & BASIC KNOWLEDGE OF COMPUTER**

**(10 marks)**

- Dentists Act 1948 as it relates to registration of Dental Hygienists and Dentists. Legal impositions in relation to dental practice, Code of Ethics.
- Place and function of dental profession in the society and discussion of economic problems involved therein
- Social factors in dental progress, income and living standard of people
- Objective and scope of dentistry, Dental specialties
- Fundamental and elementary principle of Dental Radiology
- Technical aspects of dental radiographs ie the taking, processing and mounting of dental radiographs
- General office routine economics, record keeping services, professional referrals and computing skill

**NOTE: It may be noted that apart from the topics detailed above, questions from other topics prescribed for the educational qualification of the post may also appear in the question paper. There is no undertaking that all the topics above may be covered in the question paper.**