

**HEALTH PROFESSIONS COUNCIL OF SOUTH AFRICA**

**PROFESSIONAL BOARD FOR DENTAL THERAPY  
AND ORAL HYGIENE**

**PREPARATION GUIDE  
FOR THE  
BOARD EXAMINATION FOR DENTAL ASSISTANTS**

<b>1</b>	<b>LEARNING CLUSTER: OVERVIEW OF DEFINITIONS</b>
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### **DENTITION AND CHARTING**

- Name and identify the location of each tooth surface
- Distinguish between primary, mixed, and permanent dentitions
- Describe the FDI charting system

<b>2</b>	<b>LEARNING CLUSTER: INFECTION CONTROL</b>
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### **Microbiology**

- Discuss pathogenes of importance in the dental practice, e.g. hepatitis, TB, herpes, HIV/Aids
- Types of pathogenes that are relevant to dentists or in the dental practice

### **Disease Transmission and Infection Control**

- Describe the chain of infection and preventing transmission of infectious agents/disease in oral health care facilities
- List standard precautions for diseases transition
- What is the rational standard for precautions
- Identify the categories of risk for occupational exposure, occupational health and safety
- Describe the pre-and post exposure protocols for an exposure incident
- Explain proper hand hygiene for oral health care workers
- Explain the advantages of alcohol-based hand rubs
- Discuss the types of PPE needed for Dental Assistants
- Explain the importance of various types of personal protective equipment
- Demonstrate the proper sequence for donning and removing personal protective equipment
- Identify the various types of gloves used in an oral health care facility
- Describe the proper handling and disposal methods for each type of waste generated in dentistry
- Explain the precautions necessary when treating an active tuberculosis patient
- Identify Spaulding's classification of instruments surface as it relates to sterilization and disinfection

### **Principles and Techniques of Disinfection**

- Explain why dental treatment-room surfaces need barriers or disinfection
- List the types of surfaces in the oral health care facility typically covered with barriers
- Describe the two methods to deal with surface contamination
- Explain the difference between disinfection and sterilization
- Explain the difference between a disinfectant and an antiseptic
- Identify chemical products used for intermediate-level and low-level surface disinfection, and explain the advantages and disadvantages of each

- Demonstrate the process of cleaning and disinfecting all surfaces in a treatment room
- Describe the processes of pre-cleaning contaminated dental instruments
- Explain the precautions when using chemical sterilants/disinfectants

### **Principles and Techniques of Instrument Processing and Sterilization**

- Discuss the steps in processing dental instruments
- Describe the three most common methods of heat sterilization and the advantages and disadvantages of each
- Describe the precautions necessary when packaging materials for sterilization
- Describe the steps in cleaning and sterilization of the high-speed dental hand piece
- Describe the safety precautions necessary when operating an ultrasonic cleaner
- Know the different types of sterilizers

### **Chemical and Waste Management**

- Identify types of regulated waste generated in an oral health care facility
- Identify types of toxic waste generated in an oral health care facility
- Describe how to package regulated waste for transport

<b>3</b>	<b>LEARNING CLUSTER: DIAGNOSIS AND TREATMENT PLANNING</b>
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#### **The Patient Record**

- Identify the purpose of a patient's record
- Discuss the importance of the patient's medical/dental health history and its relevance to dental treatment and medication

#### **Oral Diagnosis and Treatment Planning**

- Discuss the role of the Dental Assistant in the clinical examination
- Differentiate between an anatomic and a geometric diagram (box chart) for charting
- Discuss the importance of a treatment plan

#### **The Medically and Physically Compromised Patient**

- Discuss the diseases and conditions of importance in the medical history related to dentistry
- Discuss the importance of the patient's medication and its relevance to dental treatment
- Cardiovascular – myocardial infarction, angina, hypertension, congestive heart failure, rheumatic fever, infective endocarditis ( pace maker )
- Lung conditions – asthma, TB
- Neurological conditions – epilepsy, mental retardation, stroke, cerebral palsy, sensory impaired (blind and deaf)
- Diabetes
- Pregnancy
- Infectious diseases – hepatitis, HIV/Aids
- Young and geriatric patients

## Principles of Pharmacology

- Describe the common signs and symptoms of an emergency and how to recognize them
- List the basic items that must be included in an emergency kit
- Discuss the use of a defibrillator in an emergency
- Describe how to respond to specific emergencies

<b>4</b>	<b>LEARNING CLUSTER: RESTORATIVE DENTAL PROCEDURES</b>
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### Restoration and Aesthetic Dental Materials

- List the properties of dental materials and how they affect their application
- Describe the properties of all restorative materials (amalgam, composite resin, glass ionomers and temporary materials) and its application in restoring teeth

### Dental Liners, Bases, and Bonding Systems

- Discuss how the sensitivity of a tooth determines what type of dental material is selected for a procedure
- Discuss how and why cavity liners, varnishes, dentin sealers, dental bases are used in restoring tooth structure
- Describe the etching and bonding process of a tooth and related materials

### Dental Cements

- Describe luting cements and differentiate between permanent and temporary cements

### General Dentistry

- Discuss the differences in assisting with an amalgam versus a composite restoration
- Describe the need for placement of an intermediate restoration (temporary)
- Describe the procedure of composite veneers

### Matrix Systems for Restorative Dentistry

- Describe the type of matrices used for anterior and posterior restorations
- Discuss the purpose and use of a wedge
- Discuss alternative methods of matrix systems used in restorative dentistry

<b>5.</b>	<b>ETHICS AND HUMAN RIGHTS</b>
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### Ethical Consideration

- A. Define the ethical behavior
- B. Define five ethical concepts that are important to a dental assistant

- i. Confidentiality
- ii. Respect for the profession
- iii. Respect for fellow staff and dentist
- iv. Maintain skills and knowledge
- v. Refrain from services prohibited by state law

### **Risk Management Consideration**

- A. Define risk management
- B. List seven elements of an informed consent
  - i. Description of treatment
  - ii. Alternative of treatment
  - iii. Risk of complications
  - iv. Prognosis
  - v. Cost
  - vi. Time needed to complete
  - vii. Age and mental capacity of patient
- C. **Explain three ways to obtain informed consent**
  - i. Implied consent
  - ii. Verbal consent
  - iii. Written consent
- D. **Describe thirteen ways to manage risk**
  - i. Informed consent
  - ii. Review medical history
  - iii. Emergency preparedness
  - iv. Clear/realistic patient expectations
  - v. Maintain high level of skills
  - vi. Adequate patient safety equipment
  - vii. Disclosure of unexpected events
  - viii. Comprehensive/accurate treatment record
  - ix. Never criticize previous treatment
  - x. Protect privacy of patient (HIPA)
  - xi. Document privacy of patient (HIPPA)
  - xii. Identify responsibility/obligations in the dentist/patient relationship
  - xiii. How to respond to a threat of malpractice suit
- E. **List Six Guidelines for Managing Chart Entries as a Legal Record**
  - i. Keep a separate chart for each patient
  - ii. Correct errors properly
  - iii. Make chart entry during patient visit, do not rely on memory
  - iv. Write legibly, ink date and initial each entry
  - v. The entry should be complete
  - vi. Never change or alter the chart after a problem arises

<b>6 LEARNING CLUSTER: PROSTHODONTICS</b>
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### **Impression Materials**

- List the three types of impressions taken in an oral health care facility
- Describe the types of impression trays and their characteristics of use
- Discuss hydrocolloid impression materials and their uses, mixing techniques, and application
- Discuss elastomeric impression materials and their uses, mixing techniques, and application
- Describe the importance of an occlusal registration and its use in a procedure
- Discuss the safety precautions that should be taken in the dental laboratory
- List the types of equipment found in a dental laboratory and their uses

<b>7 LEARNING CLUSTER: ENDODONTICS</b>
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- Explain emergency endodontics
- Explain emergency routine
- Explain stages in endodontics procedures
- Explain material in endodontics
- Explain instruments in endodontics

<b>8 LEARNING CLUSTER: PERIODONTICS</b>
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- Distinguish between periodontitis and gingivitis
- Explain plaque and calculus
- Explain the causes of periodontitis and gingivitis
- Identify and describe the instruments used in periodontal therapy
- Discuss periodontal surgical dressing materials and techniques applied
- Identify the risk factors that contribute to periodontal disease and dental caries
- Describe dental therapies for periodontal diseases

<b>9 LEARNING CLUSTER: ORAL AND MAXILLOFACIAL SURGERY</b>
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### **9A. Preparation of surgery**

- Describe the indications for oral and maxillofacial surgery
- Discuss the role of the Dental Assistant during oral surgery
- Discuss the importance of the chain of asepsis during a surgical procedure
- Identify instruments used for surgical procedures including extractions
- Describe post-operative care, including possible complication, given to a patient after a surgical procedure
- Explain different types of four asepsis

**9B. Anaesthesia and Pain Control**

- Reasons to use nitrous oxide
- Explain the equipment
- Prepare and check the equipment prior to the procedure
- Explain the side effects of nitrous oxide

**9C. Local Anaesthetics**

- Different types of anaesthetics
- Different types of topical anaesthetics
- Different types of local anaesthetics
- Explain side effects of local anaesthetics

<b>10 LEARNING CLUSTER: ORTHODONTICS</b>
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**Orthodontics**

- Identify and give the functions of the basic orthodontic instruments and materials used
- Pre and post instructions.

<b>11 RADIOGRAPHY</b>
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**Foundations of Radiography, Radiographic Equipment, and Radiation Safety**

- Discuss the effects of radiation exposure on the human body
- Describe the methods of protecting the public, patient and oral health care workers from excess radiation

**Dental Film and Processing Radiographs**

- Describe the care and maintenance of the processing solutions, equipment, and equipment accessories used in manual and automatic film processing
- Describe common film processing (time and temperature) errors
- State the types and indications for the three types of dental radiographs
- Identify the five basic sizes of intra-oral dental film

**Legal issues, Quality assurance, and Infection Control**

- Explain the infection control requirements for handling radiographs

<b>12 PAEDODONTICS</b>
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- Describe basic child management techniques
- List indicators of child abuse

- Describe caries
- Describe risk factors associated with caries and basic education
- Describe preventative techniques in children

### **13 PRACTICE MANAGEMENT**

- Communicate with patients in respect of reception, appointment scheduling, fees and other enquiries related to activities performed in the dental environment
- Manage patient appointments, patient records and billing
- Manage the required registers in the dental environment, which includes, but is not limited to dental imaging, stock control, waste management, patient statistics, patient records and referrals
- Liaise with stakeholders involved in patient care, which includes, but is not limited to third party funders, other oral health practitioners, dental laboratories and dental suppliers

### **14 ORAL HEALTH EDUCATION AND PROMOTION**

#### **Oral Health Education and Promotion**

- Identify home care instructions for a permanent fixed prosthesis
- Discuss patient instructions for dentures
- Educate patients in preventive care, including tooth brushing, flossing and fluoride application

### **15 DENTAL ASSISTANT CLINICAL PRACTICE**

#### **Dental Hand Instruments**

- List the examination, cutting and restorative instruments and their uses
- Describe the use of preset trays and tubs in dentistry
- Discuss the theory of placing an instrument in a specific sequence
- Maintenance and sterilization techniques of rotary instruments

#### **Dental Hand pieces and Accessories**

- Describe rotary instruments (high-speed and low-speed hand pieces) and how they are used
- List the parts of a bur, composition, shape, and uses (cutting, finishing and polishing accessories)

#### **Moisture Control**

- List isolation techniques to decrease moisture during a dental procedure
- Describe the two types of oral evacuation systems used in dentistry (high-volume and low-volume suction)
- Describe the dental (rubber) dam, equipment and its role in moisture control



**16 COMMON DENTAL EMERGENCIES AND THEIR MANAGEMENT**

- Obstructive airway
- Respiratory problems (hyperventilation/asmatic patient)
- Cardiac conditions (hypertension)
- CVA/stroke
- Epilepsy
- Fainting/syncope
- Local and systemic allergic reactions
- Emergency trolley and its equipments and instruments.
- Knowledge of basic emergency life support up to level one.