

SPECIALTY: DENTAL THERAPY (DTH)

PAPER: CASE STUDY

Credit Value: 14

Objective/s of the paper: To access knowledge and understanding of students on clinical dentistry

Nature of the Exam: WRITTEN Format of the Exam:

Exam Paper	Option	Different sections of the paper	Duration per section	Mark allocated	Percentage %
CASE STUDY	DTH	SECTION A : SHORT ESSAY	120min	40	40%
		SECTION B : LONG ESSAY	180min	60	60%
TOTAL MARK				100	

Contents of the different sections of the paper:

- Applied knowledge in dentistry
- Critical thinking

PAPER: BASIC DENTAL SCIENCE

Credit Value: 3

Objective/s of the paper: TO ACCESS KNOWLEDGE AND UNDERSTANDING OF STUDENTS OF BASIC DENTAL SCIENCE

Nature of the Exam: WRITTEN

Format of the Exam:

Exam Paper	Option	Different sections of the paper	Duration	Mark	%
BASIC DENTAL SCIENCES	DTH	SECTION A :MCQ	30min	30	30%
		SECTION B :SHORT AWNSERS	30min	20	20%
		SECTION C :SHORT ESSAY	60min	50	50%
TOTAL MARK				100	

Contents of the different sections of the paper:

DENTAL HISTOLOGY & EMBRYOLOGY

- Development of the oral and facial region.
- Development of the face and palate
- Development of the teeth; Eruption and exfoliation of teeth.
- Enamel, Dentine, Pulp, Cementum, Periodontium, Periodontal ligament.
- Oral mucosa, Salivary Glands.

DENTAL, ORAL ANATOMY & PHYSIOLOGY

- Descriptive Anatomy: - Deciduous teeth; Permanent teeth - Dento-osseous structures.
- Arrangement of the teeth

HEAD AND NECK ANATOMY

Anatomical nomenclature:

- Regions of the head
- Skeletal system
- Muscular system.
- Blood supply
- Glandular tissue
- Nervous system
- Lymphatic system.

SCIENCE OF DENTAL MATERIALS

- Properties of Dental Materials; Chemistry of setting, basic principles.
- Technical considerations
- Impression compound: Reversible hydrocolloid impression; Irreversible hydrocolloid impression;
 - Zinc oxide-Eugenol impression paste
- Synthetic resins, Denture Base Resins, Denture Cement Z-O-E; Denture silicate Cement, Dental porcelain.
- Constitution of alloys, heat treatment, corrosion; Dental amalgam alloys, abrasion and polishing - Root canal antiseptics, Iodoform powder, Acrylic resins
- Zinc oxide-Eugenol impression paste

PAPER: CLINICAL DENTAL SCIENCE I

Credit Value: 4

Objective/s of the paper: TO ACCESS KNOWLEDGE AND UNDERSTANDING OF STUDENTS OF CLINICAL DENTAL SCIENCE

Nature of the Exam: WRITTEN Format of the

Exam:

Exam Paper	Option	Different sections of the paper	Duration per section	Mark allocated	Percentage %
CLINICAL DENTAL SCIENCE I	DTH	SECTION A :MCQ	35min	30	30%
		SECTION B :SHORT AWNSERS	25min	20	20%
		SECTION C:SHORT ESSAY	25min	20	20%
		SECTION D: LONG ESSAY	35min	30	30%
TOTAL MARK					

Contents of the different sections of the paper:

ORAL AND DENTAL PATHOLOGIES

- ODP Semiology
- Developmental disturbances of oral and paraoral structures -
- Dental caries, pathology of the pulp and periapical tissue.
- Pathology of the periodontium, oral, face and neck infections
- Oro-dental radiodiagnosis,
- Cysts of the oral cavity, pathology of the salivary glands -
- Oral malignancies.
- Oral Manifestations of systemic Disease

ORAL DIAGNOSIS AND TREATMENT PLANNING

- History taking in dentistry
- Bacteria infections in the mouth
- Viral infections in the mouth
- Oral candidiasis
- Recurrent aphthous stomatitis
- Oral cancer
- Abnormalities of the lips and tongue
- Salivary gland disease

DENTAL RADIOLOGY

- Basic principles of x-ray generation and image production.
- Patient management; Intra oral radiographic technique; Radiation protection.
- Accessory radiographic techniques, darkroom. - Film mounting and normal radiographic anatomy.
- Radiographic interpretation

RESTORATIVE DENTISTRY

- Types of Dental Restoration: Direct, Indirect.
- Dental Restoration Costs and Insurance

- Diagnostic and communication concepts
- Principles of tooth preparation: Composite resins, Ceramic materials, Contemporary adhesive cements
- Esthetic post systems, Finishing and polishing esthetic
- Restorative materials

DENTAL ANAESTHESIOLOGY

- Pain: Basic concepts, pain perception, pain reaction, pain threshold, anatomical basis of dental pain, current views.
- The control of pain: general anesthesia, local anesthesia, local anesthesia and pregnancy, types of local anesthesia.
- Development of local anesthesia in dentistry.
- Local anesthetic solutions; potency and reliability, reversibility of action, safety,
- Duration effect, rapidity of onset, sterility, shelf-life, lidocaine, vasoconstrictors, other
- Constituents, metabolism and excretion, mode of action of local anesthetic solutions, effectiveness of local anesthesia.
- Equipment: Fundamental techniques
- Local anesthesia in the maxilla, mandible 11- Diagnosis and Management of difficulties, complications and Emergencies.

ORAL HYGIENE AND DENTAL CARIES

- Oral Hygiene: Summary of different brushing techniques - Rolling Stroke Method – Vertical Action - Vibratory Action
- Dental Caries: Etiology of dental caries;
- Pathogenesis of dental caries; - Prevention of dental caries; - Treatment of dental caries.

DENTAL ERGONOMICS

- Introduction of principals of ergonomics
- Describing the dental clinics and the dental operatory architecture with respect to the necessary motions and activities
- Rational of space, time and time work: describing the anthropometric characteristics, motion efficiency, access to tools and instruments, complementary of team roles and infections control - Operator and environmental harmony establishment: describing the working posture and stress free work

PAPER: CLINICAL DENTAL SCIENCE II

Credit Value: 3

Objective/s of the paper: To assess knowledge and understanding of students of clinical dental science

Nature of the Exam: written Format
of the Exam:

Exam Paper	Option	Different sections of the paper	Duration per section	Mark allocated	Percentage %
CLINICAL DENTAL SCIENCES II	DTH	SECTION A :MCQ	20min	30	30%
		SECTION B :SHORT AWNSERS	20min	20	30%
		SECTION C :SHORT ESSAY	30min	20	20%
		SECTION D:LONG ESSAY	50min	30	20%
TOTAL MARK				100	

Contents of the different sections of the paper:

PERIODONTICS / PERIODONTOLOGY

- Etiology and pathogenesis of POD
- Clinical oral Examination, Diagnosis, Treatment planning, Prognosis
- Bacterial plaque and methods of control
- Detection and removal of calculus in periodontal therapy.

ENDODONTICS

- Pulp Cavities of the Permanent Teeth; Maxillary first molar, Mandibular First Molar, Maxillary central and lateral incisors, Maxillary premolars, Mandibular premolar, maxillary second and third molar, - Mandibular incisors, maxillary and mandibular canines.
- Diseases of the Dental Pulp: classification of endodontic procedures
- Etiology, histopathology, symptoms, diagnosis, and classification of diseases of the pulp. - Techniques of opening and filling chambers and canals

PAEDODONTICS

- Treatment planning for children: The anxious child, the child with toothache, Abnormalities of the teeth
- Anatomy of primary teeth (relevance to cavity design)
- Local anesthesia for children
- Restoration of carious deciduous teeth
- Dental trauma-NAI, injuries to primary teeth, injuries to permanent teeth, crown/root fracture, Management of the avulsed tooth

ORTHODONTICS

- Correction of occlusion, the basis of orthodontics
- The etiology of malocclusion and associated maxillofacial deformities

- Biologic problems pertaining to orthodontic treatment
- Orthodontics appliances
- The use of differential and optimum orthodontic forces
- Diagnosis and assessment of treatment requirements. Treatment
- Treatment of class III malocclusion

FULL DENTURE PROSTHODONTICS

- Treatment planning
- Principles of complete denture prosthodontics
- Recording the occlusion for complete dentures
- Trial insertion of complete dentures
- Fitting complete dentures
- Denture maintenance
- Cleaning dentures - Denture problems and complaints

PARTIAL DENTURE PROSTHODONTICS

- Treatment planning for partial dentures - Principles of partial denture fabrication
- Components of partial dentures
- Partial denture design
- Clinical stages for partial denture
- Over dentures

PAPER: APPLIED CLINICAL DENTAL SCIENCE

Credit Value: 10

Objective/s of the paper: To assess knowledge and understanding of students on applied clinical dentistry

Nature of the Exam: **Practical**

Format of the Exam:

Exam Paper	Option	Different sections of the paper	Duration per section	Mark allocated	Percentage %
APPLIED CLINICAL DENTAL SCIENCE	DTH	SECTION A: Preexamination preparation	30min	15	15%
		SECTION B:Patient clarking	30min	20	20%
		SECTION C: Treatment	90min	50	50%
		SECTION D: prescription	30min	15	15%
TOTAL MARK				100	

PAPER: BASIC SCIENCE I

Credit Value: 6

Objective/s of the paper: To assess knowledge and understanding of students of basic science

Nature of the Exam: written Format of the Exam:

Exam Paper	Option	Different sections of the paper	Duration per section	Mark allocated	Percentage
BASIC SCIENCE I	DTH	SECTION A:MCQ	90min	60	60%
		SECTION B: Short answers questions	45min	20	20%
		SECTION C: Short essay questions	45min	20	20%
TOTAL MARK				100	

Contents of the different sections of the paper:

ANATOMY AND PHYSIOLOGY

1. Nervous System

- Histology of the central and peripheral nervous system
- Physiology of the central and peripheral nervous system: nervous influx, transmission of the influx (chemical mediators, synapse, driving plate), arc reflex;
- Organization of the central nervous system and functional localization: spinal cord, and medulla oblongata, brain, meninges and CSF;
- System Device nervous, cranial nerves, plexus;
- Neuro-vegetative system: sympathetic and parasympathetic.

2. The Endocrine System

- Endocrine pancreas;
- Thyroid: anatomy - Histology - physiology;
- Parathyroids: anatomy physiology, metabolism of calcium; - Adrenals: Histology Anatomy, Physiology. - System hypothalamo-pituitary; - The stimulines.

3. Organ of meaning

- The eye: the view;
- The ear: hearing and balance;
- Smell: Taste; - Touch.

4. System Musculoskeletal

- Ceos;
- The osteites;
- The osteomyelitis.

5. Cardiovascular System:

- The Heart

Anatomy: configuring external and internal structure, histology of the heart muscle; Physiology: automatism, revolution, noises of the heart, the electrocardiogram.

- The vessels Anatomy: arteries, veins: their structure, Anatomy of the large and the small circulation;
- Circulatory physiology: blood pressure, venous circulation and capillary.
- The blood:The plasma and dissolved substances, figurative elements, hematopoiesis, haemolysis;
 - Coagulation; - Blood group.
- The reticulo-endothelialsystem -Rate, lymphatic, thymus.

6. Respiratory system:

- Anatomy: Upper airway (anatomy endoscopy and non-surgical), nasal cavity, pharynx, larynx, trachea;
- Bronchus, lungs, pleura, anatomy and histology.
- Physiology of Breathing; Mechanisms for regulating nervous; Chemical phenomena.

7. Digestive system:

- General topography; the peritoneum
- The main categories of food: Energy Needs; Animal heat.

8. Genito-urinary system (woman-man):

- Structure and Physiology of the following organs: the kidney, the ureters, the urethra and bladder
 - Excretory Role of the skin
- Description anatomy and physiology of the genitalia of the Man and the woman

CELL BIOLOGY AND HISTOLOGY

- The cell: Structure; Multiplication;Physiology;
- The tissue: Epithelial tissue; Connective tissue; Nervous tissue; Concept of genetics

PAPER: BASIC SCIENCE II

Credit Value: 6

Objective/s of the paper: To assess knowledge and understanding of students of basic science

Nature of the Exam: written Format of the Exam:

Exam Paper	Option	Different sections of the paper	Duration	Mark allocated	%
BASIC SCIENCE II	DTH	SECTION A :MCQ	60min	30	30%
		SECTION B:SHORT AWNSERS	30min	20	20%
		SECTION C : SHORT ESSAY	30min	20	20%
		SECTION D :LONG ESSAY	60min	30	30%
TOTAL MARK				100	

Contents of the different sections of the paper:

GENERAL PHARMACOLOGY

- Definition, Origins of drugs
- The medical prescription: Writing and reading of a medical prescription
- Routes of administration of drugs
- Pharmacodynamics and Pharmacokinetics
- Classification of medicines, a concept of toxicity - Drug intoxication

MICROBIOLOGY, BACTERIOLOGY & PARASITOLOGY

- Introduction to the Bacteriology: Place in the living world and ecological role of microorganisms (saprophytes, commensalism, symbiosis and pathogens).
- General Bacteriology: Structure of the bacterial cell, nutrition and growth, metabolism (anaerobic, aerobic conditions, fermentation), reproduction and genetics (genetic transfer, mutation), pathogenicity (notions of virulence, toxin).
- Bacterial Ecology: Role of the field, reference mechanism of the host against the infection (Immunosuppression, opportunistic bacteria, nosocomial infections).
- Presentation of the bacterial cell
- Study of the main species or bacterial groups pathogenic for man or likely to be - Staphylococci, Streptococci, pneumococci, gonococcus, (history, habitat and epidemiology, fill pathogen, Bacteriological characters, diagnosis, treatment and prophylaxis).
- Bacteriological techniques - Basic Techniques (microscopic examinations, insulation and identification), different types of levy in Clinical Bacteriology (technique and transport), methods of sterilization and preparation of media of cultures.
- Procedures for the sending of samples and of bacterial strains 8. Techniques of conventional identifications.
- Parasitology:
 - Systematic study of human parasites, few definitions and concepts prior, mode of parasitism - Location of parasites
 - Epidemiology and evolutionary cycle

-Parasitic disease: clinical description, pathology, defense of the body; Prophylaxis (general and individual)

BIOCHEMISTRY

- Generality: enzyme, vitamin, a hormone
- Basic concept of clinical biochemistry General: definition of a metering and exploration
- Learning of normal and abnormal physiology of carbohydrates, lipids, proteins
- Physiological study of different biochemical parameters of medical interest: techniques of biochemical assay and interpretation, normal values of biochemical constituents in biological fluids and pathological variations

GENERAL CHEMISTRY

- Mixture and pure body
- The major processes of immediate analysis
- Simple body-to-body composed
- Constitution of the material: atoms, molecules and ions
- Chemical notation, symbol, Valencia, formula
- The fundamental laws of Combinations: chemical equation, acids, bases, salts, concept of PH, equivalent, nomenclature, redox, degree of oxidation, catalysis.

ELEMENTARY MATHEMATICS

- Descriptive statistics: Introduction- The tally; Frequency table; pictogram.- Central tendencies: The mean; the mode; the median.- Frequency distribution; Variability: Range; Mean and Standard deviation.
- Probability: -Basic definitions; the possibility space; Probability of an event; Compound events - Diagrammatic representation – Contingency table – Probability laws.
- Differential Calculus: -The derivative: Gradient of a straight line curves; Maxima and minima Rate of change.
- Applications in velocity and acceleration.
- Integral calculus: 12. Integration as anti-differentiation – Constant of integration – Table of integration – integration as area under a curve – the definite integral. Applications.

NURSING CARE TECHNIQUES

- General introduction - Patient reception, records and patient room. - Clerking (history taking)
- Preparation of the room, patients bed; description, types of beds, bed making, - Personal hygiene. Prevention of bed sores, position in bed, care of the bed.
- Taking of vital signs