HAFEEZ INSTITUTE OF MEDICAL SCIENCES PESHAWAR

Curriculum F.Sc Dental Hygiene

Part – I & Part – II

HAFEEZ INSTITUTE OF MEDICAL SCIENCES PESHAWAR

F.Sc Dental Hygiene 1st Year

S.No	Subject/Papers	Course	Marks	
1.	English – I	According to BISE Peshawar	Theory 100	Practical Nil
2.	Urdu – I	According to BISE Peshawar	100	Nil
3.	Islamiat	According to BISE Peshawar	50	Nil
4.	Basic Medical Sciences Anatomy & Physiology	Teacher Lecture Notes	75	25
5.	Applied Sciences Physics & Chemistry	Teacher Lecture Notes	50	25
6.	Dental Techniques –I	Teacher Lecture Notes	75	50

Grand Total= 450 +100 = 550

HAFEEZ INSTITUTE OF MEDICAL SCIENCES PESHAWAR

PAPERS:- APPLIED SCIENCES (PHYSICS & CHEMISTRY)

Physics

1. The nature of Science, Divisions of Science, and Scientific method
2. The Measurement – Metric System, scientific notation, units of mass, length and volume
3. Mechanics – force, equation of motion, laws of motion
4. Gravity – speed, velocity and acceleration, center of gravity, weight and mass
5. Work, Power, Energy
6. Simple machines-principles of machines, friction, levers
7. Density, specific gravity, Archimedes's Principle
8. Pressure – Definition, pressure in hydrostatic fluids, pressure in flowing liquids
9. Gas Laws – Boyle's and Charles laws, gas laws applicable to respiratory process effects of changes in atmospheric pressure on physiology of the human body
10. Heat – nature and measurement, effects of heat, methods of transfer
11. Light – Transmission, reflection and refraction of light, lenses
12. Sound – how it is produced, characteristic, transmission, reflection of sound, echoes, ultrasound
13. Electricity – Atomic structure, free electrons, conductor and insulators, Definition of current, P.D., Resistance, Resistance laws, Ohm's law, circuit, series circuit, parallel circuit, Power and energy.
14. Magnets and Magnets – Properties, magnetic field, magnetic lines of force, electromagnet, magnetic effect of electric current, Motor and generator effect of current, magnetic and electric induction, Transformer.
15. Charge - Coulomb's law, capacitor and capacitance, capacitor in series and in parallel
16. A.C. Definition, RMS value, peak value Sine wave
17. Electromagnetic Radiation – Spectrum, ionization, excitation, Inverse Square law frequency, wave length, terms and their definitions

Practical Physics

a. To find the unknown force
b. To find the center of gravity of an irregular shape
c. To verify the law of reflection
d. To find the path of light passing through a prism
e. To find the focal point of a lens
f. Determine the critical angle of glass using a glass prism
g. Determine the focal length of convex lens
h. To find the reflective index of a liquid using a concave mirror
i. Determine the speed of sound at a room temperature

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PAPERS:- APPLIED SCIENCES (PHYSICS & CHEMISTRY)

Chemistry

1. Composition of Substance – Atoms and molecules, symbols, formulae, Elements and compounds, chemical formula
2. Chemical Reactions and Equations
3. Water – Physical and Chemical properties, Deliquescent, efflorescent, hygroscopic substances, solvent properties, Hydrolysis, Water cycle, impurities, hard and soft water
4. Solution – Terms, Solubility, Concentrations, dilutions, properties of solution
5. Acid, Bases, and Salts
6. pH Scale and buffer system
7. Electrolytes and electrolysis
8. Amines and amides
9. Proteins – compositions, properties of amino acids, classifications
10. Carbohydrates
11. Lipids

Practical Chemistry

1. How fitting up a wash bottle is prepared?
2. To pacify the given sample of impose naphthalene crystallization
3. To pacify the given sample of naphthalene by sublimation
4. To determine the melting & boiling point of organic compound
5. To prepare the standard solution of acid or base
6. To prepare a standard solution of exotic acid and with its help standardize a solution of NaoH
7. To prepare approximates N/10 solution of H_2SO_4 determine its exact normality by titrating it against standard N/10 NaoH?
8. To standardize a given solution by direct method
9. To standardize a given solution by indirect method

HAFEEZ INSTITUTE OF MEDICAL SCIENCES PESHAWAR

PAPERS:- BASIC MEDICAL SCIENCES (ANATOMY & PHYSIOLOGY)

Anatomy

The depth of the subject will only be diagram and labeling of the diagram

Introduction

The study of human cell and functions of organelles, Nucleus, DNA helix, RNA, genetic code, Chromosomes
Cell Division
Mitosis and Meiosis of cell
BASIC TISSUES

- Different Types of tissues
- Connective tissues
- Epithelial tissues
- Muscle tissues
- Nervous tissues
- Blood tissues

The circulatory system-Structure of heart. Different chambers of heart, main arteries arising from the heart and main veins of the heart, branches of arch of aorta, Thoracic aorta, abdominal aorta, main vessels of upper and lower limbs.
Lymphatic System
The Gastro Intestinal Systems

- Mouth
- Pharynx
- Esophagus
- Stomach
- Small Intestine
- Large Intestine
- Accessory Organs (Liver, Spleen, Pancreas & Gall Bladder)

Respiratory Systems

1. Organs of respiration
2. Upper respiratory tract
3. Lower respiratory tract

The Skin

1. Epidermis
2. Dermis
3. Sebaceous glands
4. Nails

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The Nervous System

1. CNS central nervous system
2. Peripheral nervous system
    i. Different parts of nervous system
    ii. Structure of cerebrum, mid brain, cerebellum, Pons and medulla oblongata, spinal cord and
    iii. Autonomic nervous system

The Endocrine Glands

Short Description and position of:-

a. Pituitary gland
b. Thyroid gland
c. Parathyroid gland
d. Adrenal gland
e. Hormones of Testis
f. Prostate
g. Ovaries
h. Pancreas and Thymus

The urinary system

Structure of kidney, urethra, urinary bladder, prostate gland and ureter. Difference of right and left kidneys.

The Reproductive System

a. Male reproductive system
b. Female reproductive system
c. Different organs of male reproductive system, structure of testis, the scrotum, seminal vesicles, prostate gland, the penis and urethra
d. Different organs of female are reproductive system, Mammary glands, structure of ovaries, uterus, cervix and vagina.

The Skeleton

Different bones of skull. Bones of upper limbs, lower limb, thorax, pelvis and vertebral column

Structure of individual bones, scapula, humorous, radius, ulna, femur, tibia and hip bones, hands, foot, ribs, sternum, clavicle, sacrum, thyroid,, hyoid cricoids.

The Joints

All joints and their movements
Main muscles of body

The Special Senses:

Brief anatomy of eye. Three coats of eye ball. Brief anatomy of ear Outer, middle and inner ear, nose-inner and outer, tongue, salivary glands, skin.

Recommended Books:

Foundations of anatomy and Physiology by Kathleen J.W.Wilson.

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Subject/Papers Basic Medical Sciences (Anatomy & Physiology)

Physiology

The Physiology of the following topics will consist of brief description of the function of part of the body.

The Cell and its Functions

1. Structure and Functions of a human cell
   The cytoplasm and its organelles
   Comparison with animal cell
   Functional System of the cell
2. Endocytosis & Phagocytosis
   Ingestion and digestion by the cell
   Functions/Structures of Golgi apparatus
3. Cell Division
   Mitochondria and reticulum
   Cell reproduction

Tissues and Fluids of Body.

Cardiovascular System (Heart and Circulation)

Description of Heart and vessels (arteries, vein and capillaries)
Cardiac cycle, diastole and systole
Functions of atria and ventricles
Functions of valves
Heart pumping (work output of heart)
Cardiac output, stroke volume etc
Heart sounds

Lymphatic System Function

Respiratory System

Basic mechanism of respiration
Inspiration expiration mechanism
Pulmonary capacities and pulmonary volumes
Respiratory rate and tidal volume definitions
Functions of respiratory pathways (Chemical & Neural Control)
Artificial respiration, mouth breathing
Transport of oxygen and carbon dioxide in the blood and body fluids

Gastro Intestinal Tract.

Ingestion of food, mastication (Chewing)/ Digestion and Swallowing
Functions of stomach
Storage function, mixing of food

Secretions of GIT

Saliva, Salivary glands functions of
Saliva, Gastric Section, Functions of
Pancreatic Secretion, Bile Secretion and its function
Secretions of the small intestine, secretion of large intestine, Digestion and absorption of food.

Metabolism

Introduction to fat and Protein Metabolism

Introduction to Carbohydrates Metabolism, Role of Glucose in Carbohydrate metabolism, Transport of glucose in body tissue, Lipid metabolism transport of lipids in the blood. Transport from the GIT, and fat deposits, Proteins metabolism basic properties of protein, use proteins for energy, Vitamins and their metabolic role.

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Endocrine Glands

Endocrine glands and their hormones
The pituitary hormones and their functions
The thyroid hormone, the adrenocortical hormones
Parathyroid hormones and their functions

Reproductive System

Functions of the male reproductive organs
Functions of the female reproductive system
Testosterone and other male sex hormones
Pregnancy, lactation and female hormones

Special Senses

Introduction to Sensory organs and their function
The eye functions and elements of eye, Sclera, Choroid retina. The eye as a camera, Sense of Hearing tympanic membrane and external ear, middle ear and vesicles internal ear and its functions.
Conduction of sound to the cochlea
The functions of Tongue and salivary glands
The Functions of Nose and Tonsils/Adenoids
The Functions of Skin and its appendages

Nervous System

General design of nervous system types and parts of nervous system Functions of brain, cerebrum spinal cord. Cranial nerves. Autonomic nervous system (Parts and Functions).

HAFEEZ INSTITUTE OF MEDICAL SCIENCES PESHAWAR

PAPERS:- DENTAL HYGIENE TECHNIQUES –I

REGIONAL ANATOMY

a. A brief outline of the systems of the body with general observation concerning its structure
b. A detailed knowledge of the surface features of the oral cavity
c. The lymphatic drainage of the head and neck
d. A general knowledge of the salivary glands, the muscles of facial expression and mastication together with the temporomandibular joint, the facial skeleton and mandible as related to recognition of part of the surface.
e. An examination material illustrating the respiratory, cardio-vascular and alimentary system.
f. A consideration of neurology sufficient to recognize the principles involved in regional anesthesia.

B. DENTAL ANATOMY AND HISTOLOGY

i. A detailed account of the deciduous and permanent teeth together with their dates of eruption, formation of crown and roots, common variations and position in the jaws.
ii. The histology of enamel dentine, pulp, cementum, periodontal, membranes and gingival.
i. A general account of the development of the tooth & its supporting structures including the mechanism of teeth eruption.

C. PATHOLOGY AND MICROBIOLOGY

- Mechanism of inflammation, specially occurring in the soft and hard dental tissue.
- Common oral pathological conditions
- Knowledge of the nature and types of micro-organisms associated with dentistry and their part in disease process
- Infections in and around the oral cavity, common pathological conditions
- Pathology, Bacteriology and Parasitological (Reaction of injury, nature of injurious agents, sign and symptoms. Acute inflammation and suppuration, Immunity, Pyrexia, Shock, syncope, repair, granulation, organization, hypertrophy, Hyperplasia, degeneration, necrosis).

D. STERILIZATION

- The Principle of dis-infection and sterilization
- Detailed knowledge and understanding of methods of sterilization and disinfection for various instruments and materials used in dentistry
- Care of instruments and materials during and after sterilization
- Principles of avoidance of cross infection.

E. NUTRITION

- Constituents of diet, protein, fat, carbohydrates, minerals are vitamins. Nutritional deficiency, diet affecting teeth.
- Dental problem of mother during pregnancy. Need of dental attention to mother and child.

F. CARING OF PATIENT

1. Preparation of the patient
2. Checking the treatment and equipment
3. Sharpening of instruments
4. Appointments
5. Patient requiring special attention
    a. Oral surgery cases
    b. Orthodontic patient
    c. Cleft patale patient
    d. The handicapped
    e. Scaling and polishing

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ORAL MEDICINE AND PHARMACOLOGY

The patient's medical history

- Conditions, which alter the Dental Hygienist's treatment, plan
- Pregnancy
- Hepatitis
- Bleeding Disorder
- Drugs in Dental use
- Pain relieving Drugs
- Anti microbial Drugs
- Agents used to control bleeding

EMERFENCIES IN THE DENTAL SURGERY

a. Responsibilities of the Dental Hygienist in an emergency
b. Emergencies and their treatment
    i. Fainting
    ii. Cardiac arrest
    iii. Coronary Thrombosis
    iv. Respiratory Obstruction
    v. Epileptic fit
    vi. Diabetic crises
c. Management of unconscious patient
   Instruments and equipment

INDENTIFICATION AND CARE OF INSTRUMENTS AND EQUIPMENT USED IN DENTAL SURGERY

a. Care of hand pieces
b. Sharpening of instruments
c. Care of dental chair, unit, evacuator air compressor, ultra sonic scalar sterilizer, endodontic kit.

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F.SC DENTAL HYGIENE 2ND YEAR

S.No	Subject/Papers	Course	Marks	
1.	English – II	According to BISE Peshawar	Theory 100	Practical Nil
2.	Urdu – II	According to BISE Peshawar	100	Nil
3.	Pak Study	According to BISE Peshawar	50	Nil
4.	Basic Medical Sciences Public Health & First Aid	Teacher Lecture Notes	75	25
5.	Applied Sciences Computer & Hospital Safety	Teacher Lecture Notes	50	25
6.	Dental Techniques –II	Teacher Lecture Notes	75	50
		Grand Total=	**450 +**	**100 = 550**

HAFEEZ INSTITUTE OF MEDICAL SCIENCES PESHAWAR

PAPER:- APPLIED SCIENCES (COMPUTER SCIENCES & PATIENT SAFETY)

Computer Sciences

Note: This is an introduction to Computer Science. A brief description and definitions of terms will be taught to the students.

1. An over view of Computer System
2. The shapes of computer today-Super Computer, Main frame, minicomputer, works stations and PC
3. Input methods-Key board, Mouse
4. Alter native methods of input - hand devices, optical devices, Audio-visual input devices
5. Monitors and sound system –Monitors- PC. Projectors, sound system
6. Printer and brief introduction to its types
7. Transforming data into information representation, process, speed etc
8. CPU-types with definition
9. Types of storage devices – Magnetic and optical
10. Measuring drive information – access time, file compression, transfer rate, interface standard
11. Basic of operating system – interface, program, files hardware and software management
12. Definitions of Unix, DOS, Macintosh operating system, windows, OS / 2, windows NT, 95, 98, 2000, Linux
13. Words processing and Desk tope Publishing software
14. Spread sheet software
15. Presentation program
16. Presentation program
17. Data base management system
18. Networking basics – brief of use, structure, LANs, Media, Hardware and software
19. Internet basics
20. Accessing, connecting, working on internet, introduction to DICOM, PACS
21. Working with images
22. Graphics Software
23. Understanding multi-media
24. Creating and distributing media contents
25. Basics of information system- five phases-need, Design, development implementation, maintenance
26. Building information system – five phases – need Design, development, implementation, maintenance.
27. Creating programs-definitions of program and approaches
28. Programming language and system development life cycle
29. Ergonomics health and privacy issues
30. Brief of computer crimes, Viruses. Theft and computer environment

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PAPER:- APPLIED SCIENCES (COMPUTER SCIENCES & PATIENT SAFETY)

Patient Safety

ELECTRICAL HAZARDS

- Electrical current and body muscles
- Electric shock
- Defibrillators
- Pace makers
- High and low frequency electricity in medicine
- Classification of medical equipment
- Degree of protection in equipment
- Earth leakage current
- Maximum current limits and safety tests

FIRE AND EZPLOSION IN HOSPITALS

- Inflammable gases and liquids
- Static electricity
- Precaution against fire and explosion

SURGICAL DIATHERMY AND OTHER POSSIBLE HAZARDS IN HOSPITALS

- Surgical diathermy and precautions
- Mechanical hazards
- Heat and light hazards
- Chemical burns

RADIATION

- Non-ionizing radiation
- Ionizing radiation
- Microwave ovens
- Ultrasound therapy equipment
- Lasers

INFECTION IN HOSPITALS

- The hospital environment
- Pathogenic, non-pathogenic microorganisms
- Modes of spread of infection
- Kinds of infection
- Cross-infection
- Precautions and prevention

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PAPERS:- BASIC MEDICAL SCIENCES (PUBLIC HEALTH & FIRST AID)

Public Health

Introduction: To health field, definition of health, preventive, social, community and family medicine.
Health care organization in Pakistan.

i. General introduction to federal, provincial, divisional and district level organizational structure.
ii. Role of Paramedics in hospitals

AIR
Composition and functions-Pollution and pollution indicators-impurities in air cleaning methods (an over view)

WATER
Sources of water with special reference to Pakistan. Impurities-Safety Purification, Natural and artificial methods.

VENTILATION
Objectives and merits. Over crowing and its effects on human body. Natural ventilation and artificial ventilation.

WASTAGE
Introduction-refuse and its collection. Methods of collection and disposal of refuse-Excreta-Methods of collection and disposal of Excreta.

INFECTION AND DISINFECTING
Introduction-Terminology-Methods of disaffection
Sources of infection-routes of transmission i.e., air water and food

COMMUNICABLE DISEASES
Introduction-EPI and diseases related to it, vaccination schedule.
Communicable diseases like T.B, diphtheria, tetanus, polio, whooping cough and measles Epidemiology and prevention methods for above diseases.

FAMILY PLANNING
Need and objectives-general methods.

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PAPERS:- BASIC MEDICAL SCIENCES (PUBLIC HEALTH & FIRST AID)

First Aid

1. **First Aid**
   - Definition
   - Principles
   - Actions at emergency
2. Dressing + Bandages
3. Short structure & function of respiratory system
4. Asphyxia
5. Assisted respiration
6. Short stricter and function of C.V.S
7. Shock (Circulatory failure) Patho-Physiology
8. Cardiogenic shock Treatment
9. Hypo-volume shock (Hematologic) with treatment other condition
10. Anaphylactic Shock
    - Signs
    - Symptoms
    - Treatment
11. Septic Shock
12. Neurogenic shock
13. Cardiopulmonary resuscitation principles practical demonstration
14. Assessment of newborn
15. Resuscitation of new born
16. Short structure & function of locomotive, sprains and strains
17. Fractures, First Aid Management
18. Burns, Scalds causes and First Aid Management
19. Wounds cuts stabs and management
20. Management of Bleeding from wound/Nose/Mouth/Misc
21. Drowning – first aid management
22. Road traffic accidents (First Aid Management
23. Transport of injured persons especially spinal are
24. Care of Coma/Stupor unconscious victim
25. Poisonings-swallowed persons and first aid management
26. Poisonings inhalation poisonings first aid management
27. Bites Stings management human, cat dog insect
28. Snake bite and first aid management
29. Phyla tic Shock and its management
30. Choking (Foreign body in airway)
31. Abdominal pain (First Aid)
32. Sport injuries
33. Safety at home precautions/safety
34. Precautions at kitchen to avoid accidents
35. Precautions at bathroom
36. Precautions in living room
37. Precautions at stairs and at terraces

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PAPERS:- DENTAL HYGIENE TECHNIQUES –II

1. **DENTAL CARIES – CONTROL AND PREVENTION**

    a. Definition of Dental caries, teeth affected, order and surface types of caries
    b. Epidemiology – Age, Sex distribution, genetics
    c. Etiology theories, diet, acid attack, control and prevention, fluoride, enzyme inhibitors
    d. Diet control
    e. Tooth pates
    f. Natural hygiene
    g. Fluorides, Fluoridation. Prophylactic Odonototomy

2. **DENTAL HEALTH EDUCATION**

- Meaning of Health, positive health, dental health, dental education
- Objective and pre-requisites
- Responsibility for dental education
- Chair side talks, lectures and group talks, exhibitions, health weeks, window displays, film shows, press radio and television articles
- Discussions and seminars.

3. LOCAL ANESTHESIA

- Definition. Used by surgeon, used by dental auxiliary
- Instruments, syringes, hubs, needles
- Local anesthetic solutions- epinephrine, procaine, lignocaine, topical anesthetics (all drugs in brief outline)
- Types of local anesthesia, block infiltration, Anatomical distribution of nerves for anesthesia
- Site and location of injection, technique, contra-in-dictions for use of local
- And general anesthetics. Post injection complications.

4. RADIOGRAPHY

Types of X-Ray Indications, for use in dentistry. Dangers and precautions, types of intra-oral films. Bitewing and extra-oral Technique of processing, developing and amounting records. Practical work based on above.

5. ORTHODONTICS

Definition. Brief outline of growth of skull and mandible. Eruption dates, Paths of eruption. Deciduous, Mixed & adult dentition. Normal arches, Roles of muscle in normal development. Brief outline of Angle's classification, skeletal classification. Axiology of malocclusion. Local and general factors, habit effect of premature loss of primary teeth, permanent teeth. Brief account of methods of treatment by removable appliances. Fixed appliances imitations of treatment. Limitations of prevention.

6. PREVENTIVE ASPECT

ORAL HYGIENE:

The filed of operation macroscopic appearance of teeth, gingival sulcus and epithelial attachment in the normal healthy mouth. Deposits and stains, their common location in the mouth. Factors influencing accumulation and retention. Classification and stains by location and by origin, appearance and treatment of yellow stains, green, black line stain metallic stains arising from degeneration of the pulp and stain caused by filling materials and drugs. Enamel hyperplasia, dental plaque, hard deposits,

supragingival and sub gingival calculus. Origin and composition of deferent deposits, Practical procedures for prophylactic removal of deposits. Possible sequelae of failure of removal of stains and deposits and effects on the teeth, supporting tissue and general health, Gingivitis, Instrumentation and description of the instruments included and their use. Maintenance of instruments. Polishing instruments and rotary instruments. Selection of instruments and their use. Maintenance of instruments. Polishing instruments and rotary instruments. Selection of instruments and their use maintenance of instruments polishing procedures Scaling procedures order of scaling, use of individual instruments, use of brushed rubber cups, etc. the procedures of oral inspection and prophylaxis natural and Artificial prophylaxis, self cleaning, food, tooth brushing techniques and additional cleansing methods. Instructing the patient in personal and oral hygiene. Practical instruction in the use of scaling and polishing of some of the more advance periodontal conditions which are treatment by the dental surgeon.

7. PLAQUE, CALCULUS, STAINS

Plaque formation, composition cal cubs, composition, type, significance. Stain, definition extra, intrinsic stains indices, oral hygiene index plaque index.

8. CHRONIC PERIODONTAL DISEASE

Classification of gingival of periodontal condition chronic periodontal disease Epidemiology of periodontal disease privation Juerib period on chronic deoqumative gingivitis.

9. ACUTE GINGIVAL AND PERIODONTAL DISEASE AND OTHER DISEASES OF ORAL MUCOSA

Acute ulcerative gingivitis cancrumoris. Acute herpetic gingival stomatitis, acute non-specific gingivitis, periodontal abscesses; stomatitis aphthous ulceration, candidacies cold sores oral keralosis, oral tumor

10. DENTAL ABNORMALITIES

Attrition, Abrasion Erosion, Developmental abnormalities

11. RESTORATIVE DENTISTRY

a. Knowledge of the restoration of teeth by various fillings in-lays crowns and bridges
b. Root canal therapy and apicoectomy
c. Treatment therapy and apicoectomy
d. Treatment of periodontal disease
e. Prosthetic (Partial and full denture and their care including general understanding of the role of Dental Technician.
f. Knowledge of surgical stages of the above procedures

12. ORAL AND MAXILLO-FACIAL SURGERY

a. Minor oral surgery, extraction of teeth, surgical removal of teeth and other oral surgical procedures. Pre and post operative care and instruction.
b. Maxilla facial surgery: Oral diseases requiring major surgery, large cysts, tumors including maxilla facial injuries and their treatment. Pre and post operative care and instruction.
c. Identification, care and maintenance of instruments, appliances and apparatus used in minor and major oral maxilla facial surgery
d. Usage of instruments in different surgical operations.

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13. PROBLEM PATIENTS

Care and handling of:

a. Mentally handicapped
b. Geriatrics
c. Nervous patients, non-cooperative patients
d. Children
e. Here lip and cleft patients.

14. HEALTH AND SAFETY AT WORK

General knowledge of:

a. Hazards of high speed instruments in dental surgery and their precautions
b. Fire precautions
c. Surgery hazards
d. First Aid
e. Welfare of patients
f. General duties of Dental surgery assistant
g. Gases volatile and inflammable material/medicines
h. Hazards of electrostatic current, diathermy, electrocautery coagulation in operatory.

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SYLLABUS FOR THE PRACTICAL FOR DENTAL HYGIENIST

1. Dental Surgery and its various components.

2. Dental chair and unit
    a. Function / operation
    b. Maintenance
    c. Common Hazards/how to coupe up
3. Sterilization
    a. Idea
    b. Method of sterilization
        i. Physical
        ii. chemical
4. Auto calving
5. Identification of various dental instruments and their assignments on Trolley.
6. Examination Instruments
7. Recording of data
8. Sealing instruments and their arrangement on dental tray / trolley.
    a. Use on model
9. Polishing instruments and equipments
    a. Slow and high speed hand pieces
    b. Polishing materials
10. Filling instruments and metri and retainer
11. Rotary instruments
    a. Deposable, Burs FG, Slow Speed, Stones, polishing cups etc.
12. Endo den tonic Instruments
13. Dental materials in general.
14. Minor oral surgery instruments, arrangement and stitching armamentarium.
15. Sealing procedure.
    a. Manual Sealing
    b. Sharpening of Instruments
    c. Usage and precautions
    d. Proper positing of patient with respect to operator and operation
    e. Procedure.
16. Ultra sonic scalar and sealing
    a. Introduction to machine indication and contra indication with respect to types of machines.
    b. Procedures.
17. Gingival dressing materials with respect to gingival packs
18. Polishing
19. Patient requiring special attention
    a. Physically handicapped
    b. Mentally handicapped
    c. Orthodontics
    d. Oral surgery – attendance to OT.

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PREVENTION

20. Plaque control
    a. Disclosure of plaque
    b. Dental Brushes of Various types and technique of brushing and timings
    c. Inter dental cleaning with floss
21. Chemical plaque control
    a. Chlorhexidene mouth wash
    b. Fluoridation
    c. Identification of caries and proper referred to dental surgery.
    d. Fissure sealants
    e. Oral lesions
22. School visits for Dental Health Education

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LIST OF RECOMMENDED BOOKS

1. Carrana = F.A
2. Peter son's = Clinical Dental Hygiene C.V. Mosby Co.
3. Steel P.F. Dimensions of Dental Hygiene
4. Wilkins E.M. Clinical Practice of Dental Hygienist, Lea of Fibiger
5. Pattison A and Behrens J The Detection and Removal of Calculus Preston Publishing