



HIMALAYAN UNIVERSITY, ARUNACHAL PRADESH

BACHELOR OF SCIENCE

OPERATION THEATRE TECHNOLOGY

1ST YEAR

1st Semester

| S. NO. | SUB. CODE | SUBJECT NAME | MARKS | | | |
|--------|-----------|-----------------------|----------|--------|-------|------|
| | | | INTERNAL | THEORY | TOTAL | PASS |
| 1 | 101 | General English | 30 | 70 | 100 | 40 |
| 2 | 102 | Computer Fundamentals | 30 | 70 | 100 | 40 |
| 3 | 103 | Human Anatomy | 30 | 70 | 100 | 40 |
| 4 | 104 | Human Physiology | 30 | 70 | 100 | 40 |
| 5 | 105 | Practical | 30 | 70 | 100 | 40 |

2nd Semester

| S. NO. | SUB. CODE | SUBJECT NAME | MARKS | | | |
|--------|-----------|----------------------|----------|--------|-------|------|
| | | | INTERNAL | THEORY | TOTAL | PASS |
| 1 | 201 | General Pathology | 30 | 70 | 100 | 40 |
| 2 | 202 | General Microbiology | 30 | 70 | 100 | 40 |
| 3 | 203 | General Biochemistry | 30 | 70 | 100 | 40 |
| 4 | 204 | General Pharmacology | 30 | 70 | 100 | 40 |
| 5 | 205 | Practical | 30 | 70 | 100 | 40 |

2ND YEAR

3rd Semester

| S. NO. | SUB. CODE | SUBJECT NAME | MARKS | | | |
|--------|-----------|---|----------|--------|-------|------|
| | | | INTERNAL | THEORY | TOTAL | PASS |
| 1 | 301 | Basic of Operation Theatre | 30 | 70 | 100 | 40 |
| 2 | 302 | Pharmacological Principles of Operation Theatre | 30 | 70 | 100 | 40 |
| 3 | 303 | Microbiology | 30 | 70 | 100 | 40 |
| 4 | 304 | Practical | 30 | 70 | 100 | 40 |

4th Semester

| S. NO. | SUB. CODE | SUBJECT NAME | MARKS | | | |
|--------|-----------|------------------------------|----------|--------|-------|------|
| | | | INTERNAL | THEORY | TOTAL | PASS |
| 1 | 401 | Hospital Acquired Infection | 30 | 70 | 100 | 40 |
| 2 | 402 | Operation Theatre Technology | 30 | 70 | 100 | 40 |
| 3 | 403 | Practical | 30 | 70 | 100 | 40 |

3RD YEAR

5th Semester

| S. NO. | SUB. CODE | SUBJECT NAME | MARKS | | | |
|--------|-----------|---------------------------------|----------|--------|-------|------|
| | | | INTERNAL | THEORY | TOTAL | PASS |
| 1 | 501 | Regional Anaesthetic Techniques | 30 | 70 | 100 | 40 |
| 3 | 502 | Basics of Surgery | 30 | 70 | 100 | 40 |
| 3 | 503 | Principles of Anaesthesia | 30 | 70 | 100 | 40 |
| 4 | 504 | Practical | 30 | 70 | 100 | 40 |

6th Semester

| S. NO. | SUB. CODE | SUBJECT NAME | MARKS | | | |
|--------|-----------|--------------------------------------|----------|--------|-------|------|
| | | | INTERNAL | THEORY | TOTAL | PASS |
| 1 | 601 | CSSD Procedures | 30 | 70 | 100 | 40 |
| 2 | 602 | Anaesthesia for Speciality Surgeries | 30 | 70 | 100 | 40 |
| 3 | 603 | Basic Intensive Care | 30 | 70 | 100 | 40 |
| 4 | 604 | Practical | 30 | 70 | 100 | 40 |

HIMALAYAN UNIVERSITY, ARUNACHAL PRADESH

BACHELOR OF SCIENCE

OPERATION THEATRE TECHNOLOGY

1ST YEAR

1st Semester

General English (101)

1) English, Communication Skill and Public Relations:

2) Writing Skills: Basics of English grammar How to write good and correct English .what is a Sentence? Types of Sentences - simple, compound, complex.

3) Listening skills: What is listening? Types of Listening Purpose of Listening, Obstacles of listening

4) Reading Skills: Purposes of reading Types of reading - skimming, scanning, extensive reading, intensive reading, Loud and silent reading

5) Rapport Building Interpersonal Response, Traits, Managing Difficult Communication Traits in a hospital, communication in terminal illness

6) Effective Communication - The Ten Commandments The process of communication & different type of communication - Definitions, Meaning, nature of communication, Purpose of communication

7) FORMAL LETTERS: Formal Style of Communication, Formal and Informal Letters, Essentials of a Formal Letter, Mechanics of Writing a Formal Letter, Drafting the Letter, Some Basic Equipment, The Format, Letters of Request, Letters of Complaint, Replying to Letters of Complaint, Letters about Jobs, Applications, Accepting an Offer, Declining an Offer, Letters to Government and Other Organisations, Letters of Complaint, Letters Giving Instructions, Letters of Request,

8) WRITING REPORTS: Different Stages in Writing a Report, Types of Report, Reporting Case History: Informal Reports, Reporting Case History: Formal Reports, Referral Letters, Referral Letters, Reply to Referral Letter

CLINICAL CASE STUDY: Significance of case study method some features, How is clinical case study prepared, Analyzing the case, Documentation and presentation, Conclusions

IMPROVING STUDY SKILLS: How do People Learn, Reading with a Purpose, What are Study Skills, Locating Information, Study Strategies for Better Comprehension: SQ3R, Variations of the SQ3R Approach

WRITING SUMMARIES-I : The technique of summarizing, Let us sum up, Key words

FORMAL CONVERSATION: FACE-TO-FACE: Making Enquiries and Giving Information at Public Offices, Making Enquiries at Hotels and Other Places, Making Enquiries : Taking a Medical History, Giving Advice to Patients. and their Relatives, Arguing with and Persuading People, Describing a Process

INFORMAL CONVERSATIONS: FACE-TO-FACE: Greetings: Enquiries about one's Health, Everyday Situations, Social Life, Other Informal Situations

TELEPHONE CONVERSATIONS: Face-to-Face and Telephone Conversation Compared, Formal Conversation, Emergency Calls, Business Calls, Informal Conversation

INTERVIEWS: Preparation for an Interview, Unfolding the Personality: Specimen Interviews

CASE PRESENTATION: How is a Case Presentation Prepared, Data Collection and Compilation of Material, Audiovisual Aids, Choice and Method of Use, How to Make the Case Presentation, Conclusion

Computer Fundamentals (102)

Introduction to Computer: Meaning or Definition of Computer, Evolution of computer, Features of Computer, Main Operation of the Computer, Main Elements of Computer System, Bits, Bytes and Words, Device in Computer, Various Input & output Device.

Applications of computer: advantages and limitations of computers.

Memory: overview of storage devices. main memory, storage evaluation criteria, random access memory, read only memory, secondary storage devices.

Generation of Computers and their Classification Generation of Computers, Classification of Computers

Operating System Meaning of Operating System, Function of Operating System, Language Translators

Database Meaning Of Database, Data Processing System, Function of Data Processing, Objectives of Database, Type of Database, Functions of Database Management System (DBMS), Advantages & Disadvantages of DBMS, Various Database Structures or database models

Windows Graphical User Interface, Windows, Features of Windows, Control Button of windows, Various Icons on Desktop

Microsoft Word (INTRODUCTION)

Microsoft Excel (INTRODUCTION)

Microsoft PowerPoint (INTRODUCTION)

Internet – Features, Different type of network, Internet,

Patient Management Medical Establishments using Computer, One or More Computer, Network, Software, Training, Service Operators of System Computerization in Hospitals and Nursing Homes, Features of a Hospital Software Packages, Password Protection ,Various Application of Different Medical ,Software and Support

Human Anatomy (103)

Introduction ,subdivisions of anatomy,anatomical nomenclature - in terms of position ,location and fundamental planes

Introduction to bones of human body of:

Bone: definition, composition, functions, classification and features of a long bone.

Cartilage: definition, components and classification.

Joints: definition of joints, classification and function

Upper limb: clavicle, scapula, humerus, radius, ulna, carpus, metacarpus & phalanges,

Lower limb: hipbone, femur, tibia, fibula, tarsus. Metatarsus & phalanges, Skull: name the bone of the skull and sutures between them, Thorax: ribs and their articulation,

Vertebral column: cervical , thoracic , lumbar , sacral and coccygeal

Surface markings of the body: Nine regions of the abdomen, Four quadrants of the hip

Introduction to vital organs:

Respiratory organ Nasopharynx, Oropharynx, Larynx, Trachea, Bronchi , Lungs (and their lobular segments), Thoracic, Pleura and pleural cavity

Circulatory organ Anatomical position of the heart, Pericardium of the heart, Chambers of the heart, Great vessels of the heart, Valves of the heart

Digestive organs Tongue, Teeth, Oral cavity, Pharynx, Esophagus, stomach

Reproductive organs Male and female gonads: testes, epididymis, ovary, fallopian tube, uterus, vagina, Introduction to male genital organs, Introduction to female genital organs

Liver and spleen Introduction, Anatomical position, Gall bladder

Excretory organs Cortex and medulla of kidney, Ureter, Urinary bladder, Urethra (male and female), nephrons.

Nervous System :Basic anatomy of nervous system, Central nervous system, Peripheral nervous system, Autonomic nervous system.

Muscles Introduction, origin and insertion, function.

Human Physiology (104)

Cell: Definition, Structure and functions the cytoplasmic organelles, Reproduction: meiosis, mitosis

The important Physio-chemical laws applied to physiology Diffusion, Osmosis, Bonding, Filtration, Dialysis, Surface tension, Adsorption, Colloid

Fundamentals of different organ system:

Cardiovascular system: Systole, Diastole, Blood circulation, Conduction system of Heart ,ECG. Cardiac Output, Cardiac Stroke.

Respiratory System: Functions of Respiratory Tract, Mechanism of Breathing and Respiration, Muscles of Respiration. Common Respiratory Disorders.

Digestive System: Digestion of food in mouth, stomach & small intestines. Absorption of food, function of liver.

Excretory System: Structure & function of kidney and urinary bladder. Mechanism of urine formation. disorders of kidney.

Reproduction System: Male and Female Reproductive organs. Mensuration cycle.

Endocrine System: Functions of various endocrine glands and hormones secreted by them

Lymphatic System: Lymph vessels, lymph nodes and lymphoid organs, their structure & functions.

Blood Definition, Composition, Function

Formation of different types of blood cells Erythrocytes, Leucocytes, Thrombocytes

Mechanism of Blood clotting

Cerebrospinal fluid Formation, Composition, Function

Special senses Hearing, Taste, Smell, Touch, Sight

Practical (105)

1. Study and care of Microscope.
2. Collection of blood samples.
3. Separation of plasma from blood.
4. Demonstration of Vacutainers and its use.
5. Preparation and Examination of blood smear.
6. Histology of Skeletal Muscle.
7. Histology of smooth muscle.
8. Histology of bone.
9. Histology of hyaline cartilage
10. Histology of elastic cartilage
11. Histology of Epithelial tissues: Columnar Epithelium, Squamous Epithelium, Cuboidal Epithelium.
12. Study of Lab Equipments.
13. Study of lab specimens

English: Job application, Resume writing .Interviews, Group discussions, Essay writing, Formal and informal communication.

Computers: Presentations, using excel sheet, Identification of computer devices

2nd Semester

General Pathology (201)

Introduction, Cell Injury ,Cell Death and Cellular Adaptation, Inflammation and types of Inflammation, Infections and types of Infections, Wound Healing and Neoplasia.

Pathology of Human Body

Introduction, Atherosclerosis and Other Vascular Diseases.

Morphological Responses of the Cardiovascular System and Ischemic Heart Diseases.

Pathology of Bacterial Pneumonia and Abscess, Tuberculosis.

Kidney and Urinary Tract Diseases.

Chronic Obstructive Pulmonary Diseases,

Pathology of the Esophagus and Stomach,

Pathology of the Small and Large Intestines

General Microbiology (202)

CLASSIFICATION OF MICROORGANISMS.

BACTERIOLOGY Introduction, Structure, Classification & Metabolism of Bacteria
.Bacterial growth curve, Basis of Antimicrobial Action- .Antibiotics.

Infections by staphylococcus and streptococcus, Infections by Mycobacterium. *tuberculosis*,
Infections by *E.coli*, Infections by Salmonella. *typhi*.

VIROLOGY Introduction, Structure, Classification and multiplication of viruses, Viral
genetics and pathogenesis of Virus, HIV virus, Hepatitis virus, Influenza virus, Herpes Virus
.Antiviral drugs

MYCOLOGY General concepts of mycology, Classification of Fungus, Structure of Fungi
and disease mechanisms, Diagnosis of Fungal Infections, Treatment of Fungal Infection.

STERILIZATION AND DISINFECTION.STAINING TECHNIQUES.

General Biochemistry (203)

Chemical Bonding Valency, Electrovalent Bonding (Ionic Bonding), Covalent Bonding
Molecular Weight of Compounds

Solutions Definition and Importance of Solutions, Types of Solutions, Diffusion, Osmosis
and Dialysis

Electrolytes Acids, Bases and Salts, Ionization, Physiological Importance of Electrolytes,

Cell: Eukaryotic Cell, its Structure and function, cell organelles structure and functions.
Biological membrane and transport .Passive and Active Transport.

Carbohydrates: classification, glycolysis and its energetic, TCA cycle and its energetics, fate of pyruvate, Regulation of blood glucose by Insulin and Glucagon. Normal Blood Glucose levels.

Lipids: Classification and importance of lipids, Types of Fatty acids, Triacylglycerols ,importance of TAG ,Phospholipids classification and function, prostaglandins and steroids. Digestion and Transportation of Lipids.

Amino acids, Proteins and Enzymes: Classification of amino acids, Importance of amino acids, Classification of Proteins, structure and functions of proteins .Classification of enzymes, Properties of Enzyme, Factors affecting Enzyme action ,Diagnostic Significance of Enzymes.

General Pharmacology (204)

Introduction, Basic concepts of drugs, Factors affecting drug response. Routes of administration of drugs, Effects of Drugs on the body, Prevention of adverse effects to drugs .Drugs and laws, Paramedics Responsibility in Drug Administration, Terminology ,drug store, Ethical and Legal Aspects. Antibiotics, Antifungals, Antivirals, Time of Administration, Abbreviations and Symbols used. Antiseptics and Disinfectants,

Practical (205)

1. Blood collection.
2. TLC
3. DLC
4. Microscopic Urine analysis.
5. Microscopic Stool Examination.
6. Staining techniques: Grams staining, Acid Fast Staining, Negative Staining, Simple Staining.
7. Laboratory instruments: Principle and working of Centrifuge, Incubator, colorimeter.
8. Blood grouping.
9. Type of Stains and their Action: Acidic Stains and Basic Stains .
10. Types of media for Bacterial Culture: Nutrient Agar, Nutrient Broth, Macconkey Agar
11. Bleeding Time and Clotting Time..

3rd Semester

Basic of Operation Theatre (301)

1. Introduction to the course: Operation room set up; discipline; liability and responsibility as an Operation Room Assistant.
2. Medic legal Aspects of Anaesthesia, consent form
3. Basic Principles of Electricity and its application in O.T., I.C.U., and C.S.S.D.
4. Fire and explosion hazards in the Operation Theatre.
5. O.T. environment (Air flow, temperature, humidity and air-conditioning)

Pharmacological Principles of Operation Theatre (302)

1. Introduction to basic Pharmacological principles, Anaphylaxis and Drug management
2. Applied pharmacology of General Anaesthetics Agents
3. Applied pharmacology of Local Anaesthetics Agents
4. Applied pharmacology of drugs used in premedication
5. Essential drugs used in CPBR (Cardio Pulmonary Brain Resuscitation)
6. Commonly used I.V. Fluids (Crystalloids and colloids).
7. Blood transfusion
 1. Blood reactions
 2. Blood components
8. Analgesics
 1. Opioids
 2. Non Opioids

Microbiology (303)

Common antiseptics used in an O.T. preparation of antiseptic solutions in common use.

1. Infections, spread, sources and processes of infections. causes of operative infections, common diseases caused by pathogens.
2. Immunity and types, Auto immune disorders.
3. Components, parts, care and maintenance of sterilizers

4. E.O. gas sterilizers.
 5. Aseptor, disinfectors
 6. Cleaning, handling, packing of material for CSSD.
 7. Methods of fumigation of operation theatre and ICU.
 8. Sterilization of hospital furniture
 9. Sterilization of blunt and sharp instruments.
 10. Sterilization of rubber goods, gloves, polyethylene tubes, gum, elastic equipment.
 11. Ventilator basic knowledge.
 12. Sterilization of dressings/bandages.
 13. Sterilization of sutures, ligatures.
 14. Sterilization of Endoscopes.
 15. Sterilization of Electrical instruments/cautery.
 16. Preparation and packing of different surgical and anaesthetic sets.
 17. Collection, labelling and dispatch of various samples/biopsy material.
-

Practical (304)

INSTRUMENT SETS

GENERAL SURGERY SETS:\

- Incision and Drainage set
- Minor Set
- General Surgical Set
- Laparotomy Set
- Gall bladder Instruments Set.
- Resection anastomosis set
- Sigmoidoscopy Set.
- Haemorrhoidectomy Set.
- Thoracostomy Set.
- Lumbar puncture Set.

OBSTETRIC & GYNAECOLOGY SETS:

- D & C set /MTP set
- Episiotomy set
- Caesarean section set.
- Abdominal hysterectomy set.
- Vaginal Hysterectomy set.

ORTHOPAEDIC SURGERY SET:

- General orthopaedic set.
- Femur nailing set
- Nailing set for tibia
- Radius & Ulna nailing set
- Humerus nailing set.
- S.P. nailing set.
- Austin Moore hip set.
- Amputation set

Steinmann's pin insertion set.

4th Semester

Hospital Acquired Infection (401)

1. Nosocomial infection (Hospital acquired infection).
2. C.S.S.D.
3. Universal safety precautions
4. HIV / AIDS and Hepatitis.

Operation Theatre Technology (402)

1. Transportation of unconscious patient.
2. Common positions for operative procedures.
3. O.T. tables and lighting C arm, microscopes, endoscopes.
4. Airway management and IPPR.
5. Cardio pulmonary resuscitation.

6. First Aid bandages, splints, plasters.
7. Preparing POP splints, bandages.
8. Collection, handling, dispatching of tissue, fluid, blood, urine samples for laboratory investigations, pathological or microbiological exam.
9. Biomedical waste collection, transport, disposal and personal hazards.
10. Reception of patients
11. Pre-operative preparation of Patient
12. Exact Anaesthetic Technique
13. Post Anaesthetic Care Unit (PACU)
14. Care and transport of unconscious patient
15. Positioning
 - A. Anesthetic Procedures
 - B. Operative Procedures
- O.T. Technician in surgical Assistant

Practical (403)

UROSURGERY SET:

- Cystoscopy Set
- Cystostomy Set
- Kidney Procedure Set
- Prostatectomy set.

ENT SURGERY SET:

- Laryngoscopy Set.
- Tonsillectomy /Adenoidectomy set
- Myringotomy set

- Mastoidectomy set.
- Polypectomy set.
- Antrostomy set.

OPHTHALMIC INSTRUMENT SET

- General eye instrument set(& iridectomy set)
- Cataract surgery set
- Chalazion instrument set
- Dacryocystorhinostomy set.

PLASTIC SURGERY SET

- Skin grafting set
- Flap grafting set
- Cleft lip & palate repair set.
- Rhinoplasty set

Maxillofacial surgery set.

5th Semester

Regional Anaesthetic Techniques (501)

- a. Local anaesthetic technique
- b. Nerve blocks
- c. Spinal Anaesthesia
- d. Epidural anaesthesia

Basics of Surgery (502)

1. History of Surgery, role of the surgeon, importance of team work and anticipating the Needs of surgeons; stresses that may arise during operative procedure
2. Surgical terminology, types of incision and indications for the use of particular incision;

3. Haemorrhage-signs and symptoms of internal and external; classification and management;
4. Identification of types of tourniquets, reasons for use and duration of application, dangers of use.
5. Wounds, types, process of healing, treatment and complications; inflammation; wound Infections-causes and treatment; incision and drainage of abscesses; importance of personal Cleanliness and aseptic techniques;
6. Pre-operative and post-operative care of the surgical patient; Emergency procedures
7. Knowledge of surgical asepsis, skin preparation for invasive procedures

Principles of Anaesthesia (503)

1. MEDICAL GAS SUPPLY

Compressed gas cylinders

Colour coding

- Cylinder valves; pin index.
- Gas piping system
- Recommendations for piping system
- Alarms & safety devices.

2. ANAESTHESIA MACHINE

- Hanger and yoke system
- Cylinder pressure gauge
- Pressure regulator
- Flow meter assembly
- Vapourizers - types, hazards, maintenance, filling and draining, etc.

3. BREATHING SYSTEM

- General considerations: humidity & heat
- Common components - connectors, adaptors, reservoir bags.

- Capnography ; etcO₂
- Pulse oximetry
- Methods of humidification.
- Classification of breathing system
- Mapleson system - a b c d e f
- Jackson Rees system, Bain circuit
- Non rebreathing valves - ambu valves
- The circle system
- Components
- Soda lime, indicators

4. FACE MASKS & AIRWAY LARYNGOSCOPES

- Types, sizes
- Endotracheal tubes - Types, sizes.
- Cuff system • Fixing, removing and inflating cuff, checking tube position complications.

5. ANAESTHESIA VENTILATOR AND WORKING PRINCIPLES.

6. MONITORING

- ECG
- SpO₂
- Temperature
- IBP
- CVP
- PA Pressure
- LA Pressure

6th Semester

CSSD Procedures (601)

1. Waste disposal collection of used items from user area, reception protective clothing and Disinfections sage gaurds,
2. use of disinfections sorting and classification of equipment for cleaning purposes, sharps, blunt lighted etc. contaminated high risk baby care - delicate instruments or hot care Instruments,
3. cleaning process - use of detergents. Mechanical cleaning apparatus, cleaning instruments, cleaning jars, receivers bowls etc. trays, basins and similar hand ware utensils. Cleaning of catheters and tubings, cleaning glass ware, cleaning syringes and needles.
4. Materials used for wrapping and packing assembling pack contents. Types of packs prepared. Inclusion of trays and galliparts in packs. Method of wrapping and making use of indications to show that a pack of container has been through a sterilization process date stamping.
5. General observations principles of sterlization. Moist heat sterlization. Dry heat sterlization. EO gas sterlization. H2O2 gas plasma vapo sterlization

Anaesthesia for Speciality Surgeries (602)

NEURO ANAESTHESIA

- Glasgow coma scale
- Premedication
- Special investigation - CT, Angiography and MRI
- Checklist • Induction of a patient
- Reinforced Endotracheal tubes
 - Postioning in neuro surgery
- I.C.P.
- Air embolism
- Reversal of the patient

- Transferring to I.C.U. / Ward

OBSTETRIC ANAESTHESIA

- Differences between a pregnant and a normal lady
- Risks for anaesthesia.
- Precautions to be taken
- Check list
- Regional vs General Anaesthesia.
- Induction / Maintenance and Recovery .
- Resuscitation of the new born, apgar score
- Reversal and extubation
- Emergencies - manual removal of placenta
 - A.P .H.
 - P.P.H.
 - Ruptured uterus
 - Ectopic Pregnancy

PAEDIATRIC ANAESTHESIA

- Theatre setting
- Check list
- Premedication - modes
- Induction
- Intubation - Securing the EIT
- Reversal & extubation – Problems
- Transferring / ICU management
- Pain management

ENT Anaesthesia

- Anaesthesia for adenotonsillectomy
- Anaesthesia for mastoidectomy
- Bronchoscopy and oesophagoscopy

CARDIAC ANAESTHESIA:

- NYHA classification
- Arrhythmias
- Angina
- Dyspnoea
- Special investigations
 - echo cardiography
 - Angiography
- Premedication
- Setting up of monitoring system
- Monitoring - invasive and non - invasive
- Getting ready for the case
- Induction of cardiac patient, precautions to be taken
- Cardiopulmonary bypass
- Weaning of CPB
- Transferring the patient to ICU.
- Care to be taken
- I.C.U management.
- Chest tube management

ANAESTHESIA OUTSIDE THE O.R

- Situations
- Cath Lab

- Radiology
- E.C.T.
- Shortcomings.
- Intubation - Securing the EIT
- Reversal & extubation – Problems
- Transferring / ICU management
- Pain management

ENT Anaesthesia

- Anaesthesia for adenotonsillectomy
- Anaesthesia for mastoidectomy
- Bronchoscopy and oesophagoscopy

CARDIAC ANAESTHESIA:

- NYHA classification
- Arrhythmias
- Angina
- Dyspnoea
- Special investigations
 - o echo cardiography
 - o angiography
- Premedication
- Setting up of monitoring system
- Monitoring - invasive and non - invasive
- Getting ready for the case
- Induction of cardiac patient, precautions to be taken
- Cardiopulmonary bypass

- Weaning of CPB
- Transferring the patient to ICU.
- Care to be taken
- I.C.U management.
- Chest tube management

ANAESTHESIA OUTSIDE THE O.R.

- Situations
- Cath Lab
- Radiology
- E.C.T.
- Short comings.

Vascular complications.

Trauma to teeth

Headache

Backache

Ocular complications

Auditory complications

MAJOR CATASTROPHES

- o Mortality
- o Causes of death
- o Cerebral damage
- o Prevention

Basic Intensive Care (604)

1. MONITORING AND DIAGNOSTIC PROCEDURES IN I.C.U.

- Central Venous access.
- ECG monitoring.
- Invasive hemodynamic monitoring

2. GENERAL CARE OF PATIENT IN I.C.U.

- o Eye o Bladder Skin
- o Care of mechanically ventilated patient
- o Tracheostomy, humidification
- o Vascular lines - arterial, venous line
- o Radiography
- o Physiotherapy - chest physiotherapy

3. FLUID BALANCE AND PARENTERAL NUTRITION

4. INFECTIOUS DISEASES IN I.C.U.

- o Antibiotics in I.C.D.
- o Oxygen therapy
- o Mechanical ventilation

5. ACID - BASE DISORDERS

6. CARDIOVASCULAR FAILURE

- o Inotropic support
- o Vaso dilator drugs.

7. RENAL FAILURE & LIVER FAILURE

8. HEAD INJURY

9. PRINCIPLES OF TRANSFUSION THERAPY

- o Whole blood, erythrocyte products
- o Plasma components
- o Platelets concentrate, Massive transfusion, acute transfusion reactions.

Practical (605)
