

**DHANALAKSHMI SRINIVASAN UNIVERSITY**  
**SAMAYAPURAM - 621112**



**SYLLABUS FOR BACHELOR OF SCIENCE IN OPERATION THEATRE &  
ANAESTHESIA TECHNOLOGY**

**HEALTH FOR ALL**

## **OPERATION THEATRE & ANAESTHESIA TECHNOLOGY**

### **I YEAR**

<b>S.NO</b>	<b>NAME OF THE SUBJECTS</b>	<b>TOTAL HOURS ALLOTTED</b>
1.	BASIC SCIENCES (APPLIED ANATOMY & PHYSIOLOGY (75%) AND BIOCHEMISTRY (25%))	90 HOURS
2.	BASICS OF COMPUTER SCIENCE AND ENGLISH **	60 HOURS
3.	CLINICAL	1000 HOURS

### **II YEAR**

<b>S.NO.</b>	<b>NAME OF THE SUBJECTS</b>	<b>TOTAL HOURS ALLOTTED</b>
1.	PHARMACOLOGY & MICROBIOLOGY	60 HOURS
2.	MEDICINE & MEDICAL ETHICS	60 HOURS
3.	PRINCIPLES OF ANAESTHESIA- I	90 HOURS
4.	CLINICAL	1000 HOURS

### **III YEAR**

<b>S.NO</b>	<b>NAME OF THE SUBJECTS</b>	<b>TOTAL HOURS ALLOTTED</b>
1.	STERILISATION PROCEDURES	60 HOURS
2.	PRINCIPLES OF ANAESTHESIA-II	120 HOURS
3.	CLINICAL	1000 HOURS

## **CLINICALS / THEATRES**

1. IV fluids and Transfusion related matters
2. Dressing, sutures, bandages and plasters
3. Recovery room and nursing care
4. Pre-Operative and Post-Operative Management of Patients
5. Patient handling and Transportation to and from the Operation theatre
6. Universal precautions for HIV Positives, HBsAg Positive
7. Introduction to Operating room
  - Ethics, Discipline, Lay out, Equipments - Lights, OT table, suction, scrub station
8. Electrical Devices – Electro cautery, Laser, Harmonic, Ligasure
9. Power Surgical Instruments – Drills Saw, Reamer
10. Common General Surgical Operations and Dressings

## **Paper -I: Basic Science**

### **BASIC ANATOMY**

#### **THEORY**

##### **Introduction to Anatomy**

##### **Basic Anatomical terminologies**

**Osteology-** Upper limb – clavicle, scapula, humerus, radius, ulna Lower limb - femur, hipbone, sacrum, tibia, fibula Vertebral column

**Thorax** - Intercostal space, pleura, bony thoracic cage, ribs sternum & thoracic vertebrae, Muscles of Thorax, Diaphragm, Lungs

**Airway** - Larynx, Trachea, bronchial tree

**Heart** - Surface anatomy of heart, chambers of the heart, valves of the heart, major blood vessels of heart, pericardium, and coronary arteries.

**Excretory sytem** - Kidneys, ureters, bladder, urethra

**Liver Central Nervous system**

#### **PRACTICALS**

##### **Mannequins to be provided for Teaching**

**Osteology** – Bones identification (right and left side) and prominent features of clavicle, scapula, radius, ulna, humerus, femur, hip bone, sacrum, tibia, fibula.

Surface Anatomy,

Radiology, X-ray Chest PA view, X-ray of limbs and X-ray abdomen:- -Names Views and identification

Specimens/Models, OSPE charts.

# **PHYSIOLOGY**

## **THEORY**

### **1) The Cell:**

- (I) Cell Structure and functions of the various organelles.
- (II) Endocytosis and exocytosis
- (III) Neuro muscular junction

### **2) The Blood:**

- (i) Composition of Blood, functions of the blood and plasma proteins:-
- (ii) Function of Hemoglobin
- (iii) Erythrocyte Sedimentation Rate.
- (iv) Detailed description about WBC-Total count (TC), Differential count (DC) and functions.
- (v) Platelets - formation and normal level and functions
- (vi) Blood groups and Rh factor

### **3) Cardio-Vascular System:**

- (i) Physiology of the heart
- (ii) Heart sounds
- (iii) Cardiac cycle, Cardiac output.
- (iv) Auscultatory areas.
- (v) Arterial pressures, blood pressure
- (vi) Hypertension
- (vii) Electro cardiogram (ECG)
- (viii) Cardio Pulmonary Resuscitation

### **4. Respiratory system:**

- (i) Respiratory movements.
- (ii) Definitions and Normal values of Lung volumes and Lung capacities.
- (iii) Oxygen saturation of Blood, Pulse Oximeter
- (iv) Surfactants

### **5. Excretory system:**

- (i) Normal Urinary output
- (ii) Micturation
- (iii) Renal function tests

## **6. Reproductive system:**

- (i) Reproductive organs
- (ii) Brief account of menstrual cycle.

## **7. Central Nervous system:**

- (i) Functions of CSF
- (ii) Functions of Cortex
- (iii) Steep cycle
- (iv) Reticular activating system

## **8. Endocrine system:**

- (i) Functions of the pituitary,
- (ii) thyroid,
- (iii) parathyroid,
- (iv) adrenal and pancreatic
- (v) Hormones.

## **9. Digestive system**

- (i) Physiological Anatomy of the GIT.
- (ii) Food Digestion in the mouth, stomach, intestine
- (iii) Absorption of foods and gastric emptying
- (iv) Role of bile in the digestion.
- (v) Vomiting mechanism

## **PRACTICAL**

- 1) The Compound Microscope
- 2) Determination of Pulse rate – Details on Pulse
- 3) Determination of Blood Groups.
- 4) Measurement of human blood pressure.
- 5) Examination of Respiratory system to count respiratory rate and measure inspiration and Expiration

## **BIO-CHEMISTRY**

### **Cellular Metabolism**

- i. Enzymes
- ii. Co-enzyme
- iii. Glucose Metabolism
- iv. Urea Cycles
- v. Protein & lipid

Classifications and functions.

### **Vitamins & Minerals:**

Fat soluble vitamins(A,D,E,K) – Water soluble vitamins – B-complex vitamins- principal elements(Calcium, Phosphorus, Magnesium, Sodium, Potassium, Chlorine and sulphur)- Trace elements – Basal metabolic rate(BMR) – respiratory quotient(RQ) Specific dynamic action(SDA) – Balanced diet – Nutritional deficiency like Marasmus – and Kwashiorkor

### **Acids and bases:**

Definition, pH, Henderson – Hasselbalch equation, Buffers, Indicators, Normality, Molarity, Molality, Blood Gas Analysis

### **BIOCHEMISTRY SYLLABUS FOR PRACTICALS**

1. Benedict's test
2. Heat coagulation tests

## **PATHOLOGY**

1. Cellular adaptation, Cell injury & cell death. Introduction to pathology.

Overview: Cellular response to stress and noxious stimuli. Cellular adaptations of growth and differentiation. Overview of cell injury and cell death. Causes of cell injury. Mechanisms of cell injury. Reversible and irreversible cell injury. Examples of cell injury and necrosis

2. Inflammation.

General features of inflammation Acute inflammation

Chemical mediators of inflammation Chronic inflammation

3. Immunity disorders.

General features of the immune system Disorders of the immune system

Hyper sensitivity reaction – I, II, III, IV

4. Infectious diseases.

General principles of microbial pathogenesis Viral infections – HBV, HCV, HIV, CMV Bacterial infections- Staphylococci, /streptococci, E-Coli, Salmonella, Tuberculosis. Fungal infections Parasitic infections TORCH infection

5. Neoplasia. Definitions Nomenclature

Biology of tumor growth benign and malignant neoplasms Carcinogenic agents and their cellular interactions Clinical features of tumors

6. Environmental and nutritional disorders. Occupational Hazards

Radiation injury Marasmus, Kwashiorkor

### PRACTICAL SYLLABUS:-

- Specimens,
- Models,
- OSPE,
- Stations,
- Charts



## **ENGLISH**

- Role of communication Defining Communication
- Classification of communication Purpose of communication
- Major difficulties in communication Barriers to communication
- Characteristics of successful communication – The seven Cs Communication at the work place Human needs and communication
- “Mind mapping” Information
- Communication

### **Comprehension passage:**

- Reading purposefully Understanding what is read Drawing conclusion Finding and analysis

### **Explaining:-**

- How to explain clearly Defining and giving reasons
- Explaining differences
- Explaining procedures Giving directions

### **Writing business letters:-**

- How to construct correctly Formal language
- Address Salutation Body Conclusion

### **Report writing:**

- Reporting an accident
- Reporting what happened at a session
- Reporting what happened at a meeting

## **BASICS OF COMPUTER SCIENCE**

### **COURSE CONTENT:**

Introduction to computer – I/O devices – memories – RAM and ROM – Different kinds of ROM – kilobytes, MB, GB their conversions – large computer – Medium, Micro, Mini computers – Different computer languages – Number system – Binary and decimal conversions – Different operating system – MS DOS – Basic commands – MD, CD, DIR,TYPE and COPY CON commands – Networking – LAN, WAN,MAN(only basic ideas)

Typing text in MS word – Manipulating text – Formatting the text – using different font sizes, bold, italics – Bullets and numbering – Pictures, file insertion – Aligning the text and justify – choosing paper size – adjusting margins – Header and footer, inserting page No's in a document – Printing a file with options – Using spell check and grammar – Find and replace – Mail merge – inserting tables in a document.

Creating table in MS-Excel – Cell editing – Using formulas and functions – Manipulating data with excel – Using sort function to sort numbers and alphabets– Drawing graphs and charts using data in excel – Auto formatting – Inserting data from other worksheets.

Preparing new slides using MS-POWERPOINT – Inserting slides – slide transition and animation – Using templates – Different text and font sizes – slides with sounds – Inserting clip arts, pictures, tables and graphs –Presentation using wizards.

Introduction to Internet – Using search engine – Google search – Exploring the next using Internet Explorer and Navigator – Uploading and Download of files and images – E-mail ID creation – Sending messages – Attaching files in E-mail – Introduction to “C” language – Different variables, declaration, usage – writing small programs using functions and sub – functions.

## **PRACTICAL**

- Typing a text and aligning the text with different formats using MS-Word  
Inserting a table with proper alignment and using MS-Word
- Create mail merge document using MS-word to prepare greetings for 10 friends  
Preparing a slide show with transition, animation and sound effect using MS-Powerpoint
- Customizing the slide show and inserting pictures and tables in the slides using MS-powerpoint
- Creating a worksheet using MS-Excel with data and use of functions Using MS-Excel prepare a worksheet with text, date time and data Preparing a chart and pie diagrams using MS-Excel
- Using Internet for searching, uploading files, downloading files creating e-mail ID Using C language writing programs using functions

## **B.Sc. Operation Theatre & Anaesthesia Technology Course**

### **Iyear syllabus**

S.NO.	NAME OF THE SUBJECTS	TOTAL HOURS ALLOTTED
1.	PHARMACOLOGY	60 HOURS PER YEAR
2.	MICROBIOLOGY	60 HOURS PER YEAR
3.	MEDICINE & MEDICAL ETHICS	60 HOURS PER YEAR
4.	PRINCIPLES OF ANAESTHESIA- I	90 HOURS PER YEAR
5.	CLINICALS/THEATRES IN THE MORNINGS	12 HOURS PER WEEK

### **SYLLABUS FOR CLINICALS/THEATRES**

1. Sterilization assembly and packing
2. Principles of Sterile Techniques – Surgical scrub, gowning and gloving
3. Surgical instrumentation, handling instruments

### **Paper-1: Pharmacology and Microbiology**

#### **Pharmacology**

##### **ANTISIALAGOGUES**

Atropine, Glycophyrrolate

##### **SEDATIVES I ANXIOLYTICS**

Diazepam, Midazolam, Phenergan, Lorazepam,  
Chlorpromazine, Trichlopho

##### **NARCOTICS**

Morphine, Pethidine, Fentanyl, Pentazozine

##### **ANTIEMETICS**

Metaoclopramide, Ondanseteron, Dexamethasone

##### **ANTACIDS**

Na citrate, Gelusil, Mucaine gel.

##### **H2 BLOCKERS**

Cimetidine, Ranitidine, Famotidine

##### **INDUCTION AGENT**

Thiopentone , Diazepam, Midazolam, Ketamine, Propofol, Etomidate.

## **MUSCLE RELAXANTS**

Depolarising - Suxamethonium, Non depolarising - Pancuronium, Vecuronium, Atracurium, rocuranium

## **INTRODUCTION TO GENERAL ANAESTHESIA**

### **INHALATIONAL GASES**

Gases - O<sub>2</sub>, N<sub>2</sub>O, Air Agents - Ether-, Halothane, Isoflurane, Sevoflurane, Desflurane

### **REVERSAL AGENTS**

Neostigmine, Glycopyrrolate, Atropine, Nalorphine, Naloxone, Flumazenil (Diazepam)

### **ANTISEPTICS AND DISINFECTANTS**

### **STERILISATION AND CLEANING OF SURGICAL EQUIPMENTS LOCAL**

### **ANAESTHETICS**

Xylocaine, Preparation, Local - Bupivacaine - Topical, Prilocaine-jelly, EMLA - Ointment, Etidocaine. Ropivacaine

### **EMERGENCY DRUGS**

- Adrenaline : Mode of administration, dilution, dosage,
- Effects, Isoprenaline
- Atropine, bicarbonate, calcium, ephedrine, xylocard,
- Ionotropes : dopamine, dobutamine, amidaron
- Aminophylline, hydrocortisone, antihistamines, potassium.
- Cardiovascular drugs
- Antihypertensives
- Antiarrhythmics
- Beta - Blockers
- Ca - Channel blockers.
- Vasodilators - nitroglycerin & sodium nitroprusside
- Respiratory system - Bronchodilators, respiratory stimulants Broncholytic agents
- Renal system - Diuretics, Furosimide, mannitol
- Obstetrics - oxytocin, methergin
- Miscellaneous - Antibiotics NSAIDs Anticoagulants and Insulin

## **SYLLABUS FOR PRACITALS:-**

- Specimens, drugs, OSPE charts

### **Microbiology**

- Sterilization & decontamination- I
- Dry
- Filtration
- General Principles Asepsis
  
- Wound Infection & Urinary Tract Infections
- Blood stream Infection
- Respiratory tract Infection
- S.Typhi, Salmonella Paratyphi 'A', Salmonella Typhimurium
- Catheter, IV Associated Infections
- Hospital acquired infections & prevention of hospital acquired infections
- Hepatitis C, HBV, HIV
- Hyper sensitivity reaction – Type I, II, III, IV
- Biomedical Waste Management

### **SYLLABUS FOR PRACTICALS**

Biomedical waste management, colour code OSPE charts

### **Paper-2: Medicine and Medical Ethics**

#### **MEDICINE**

- a. Disorder of haemopoiesis - Anaemias - iron deficiency anemia,
- b. Infections diseases - Sepsis and septic stock, fever of unknown origin, infective endocarditis, infective of skin, muscle, soft tissue, infection control in hospital, diseases caused by bacteria, viruses, myobacterm, viruses, fungi and protozoa and helminthes, common secondary infection in HIV.
- c. Diseases of CVS - congenital RHD - Rheumatic fever, CAD, Peripheral vascular diseases.
- d. Respiratory system - asthma pneumonia
  
- e. Kidney & Urinary tract - acute renal failure, Glomerulonephritis,Haemodialysis, Transplant, Urinary tract infection
- f. Liver and biliary tract disease - Viral hepatitis, alcoholism
- g. Endocrinology and metabolism - Diabetes mellitus, Hyper - andhypothyroidism
- h. Pain Medicine

## **MEDICAL ETHICS**

1. Medical ethics - Definition - Goal - Scope
2. Code of conduct - Introduction -
3. Basic principles of medical ethics - Confidentiality
4. Malpractice and negligence - Rational and irrational drug therapy
5. Autonomy and informed consent - Right of patients
6. Care of the terminally ill- Euthanasia
8. Organ transplantation
9. Medico legal aspects of medical records - Medico legal case and type- Records and document related to MLC - ownership of medical records - Confidentiality Privilege communication - Release of medical information - Unauthorized disclosure - retention of medical records - other various aspects

## **SYLLABUS FOR PRACTICALS**

- Specimens
- OSPE charts

### **Paper:3 - PRINCIPLES OF ANAESTHESIA - I**

#### **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 ETC o<sub>2</sub>
- Pulse oximetry
- Methods of humidification.
- Classification of breathing system Mapleson system - a b c de 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.
- Bousie
- LMA

### **5. ANAESTHESIA VENTILATOR AND WORKING PRINCIPLES.**

### **6. MONITORING**

- ECG
- SpO<sub>2</sub>
- Temperature
- IBP
- CVP
- PA Pressure
- LA Pressure

Bio Medical engineering of Trouble sorting Management, care of cleaning

### **7. BASIC ANAESTHETIC TECHNIQUES**

#### **INTRODUCTION TO ANAESTHESIA**

- General Anesthesia
- Regional Anesthesia
- Local Anesthesia
- Intravenous Anesthesia
- Minimum standard of anesthesia



- Who should give anesthesia?

## **PRE-OP PREPARATION:**

Pre anaesthetic assessment~ History – , past history - disease / Surgery /and personal history - Smoking / alcohol

General physical assessment, systemic examination – CVS, RS, CNS

## **INVESTIGATIONS**

Haematological - their significance E.C.G.

- Chest X - ray
  - Echocardiography
  - Angiography
  - Liver function test
  - Renal function test
  - Others

Case acceptance: ASA grading - I, II, III, IV. V

## **PRE - ANAESTHETIC ORDERS:**

Patient - Informed consent

- Npo guidelines
- Premedication - advantages, drugs used
- Special instructions - if any

Machine -Checking the machine

02, N20, suction apparatus

Laryngoscopes, et tubes, airways

- Things for IV accessibility
- Other monitoring systems

Drugs - Emergency drugs

Anaesthetic drugs

## **INTRAOPERATIVE MANAGEMENT**

- Confirm the identification of the patient
- Monitoring - minimum
- Noninvasive & Invasive monitoring
- Induction - drugs used
- Endotracheal intubation

- Maintenance of anaesthesia
- Positioning of the patient
- Blood / fluid & electrolyte balance
- Reversal from anaesthesia - drugs used
- Transferring the patient
- Recovery room – set up and things needed

## **POST OPERATIVE COMPLICATIONS & MANAGEMENT**

### **Recovery and Delayed recovery Hypoxia and Oxygen Therapy PONV**

#### **8. Basic Life Support**

Cardio Pulmonary  
Resuscitation

#### **SYLLABUS FOR PRACTICALS**

Instruments  
Gas  
cylinders

## **B.Sc. Operation Theatre and Anaesthesia Technology Course**

### **III year syllabus**

S.NO	NAME OF THE SUBJECTS	TOTAL HOURS ALLOTTED
1.	STERILISATION PROCEDURES	120 HOURS PER YEAR
2	PRINCIPLES OF ANAESTHESIA – II	150 HOURS PER YEAR
3.	CLINICALS/THEATRES IN THE MORNINGS	12 HOURS PER WEEK

### **SYLLABUS FOR CLINICAL/THEATRE**

1. Routine Maintenance of Equipments and Instruments
2. Laying out of Instrument, trolleys
3. Emphasis on Surgical Positions, Instruments required and the role of Theatre Assistant in various surgeries
4. Preparation of patient, aseptic techniques and draping
5. Special Instrument like Laproscope, Endoscope, Monitors, C-arm
6. Trouble shooting in OT
7. Specimen labelling and handling
8. Exposure to Critical Care Unit for Surgical patients

### **Main Syllabus**

1. Sterilization Procedures
2. Regional anaesthetic techniques
3. Anaesthesia for speciality Surgeries.
4. Anaesthesia for Transplant Procedures
5. **Anesthesia for Burns and**
6. Anaesthesia for Ophthalmic Procedures.

## **Paper-I: Sterilization Procedures**

1. Waste disposal collection of used items from user area, reception protective clothing and disinfections sage guards, Bio-Medical wastes, Color cooling and management
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 packof container has been through a sterilization process date stamping.
5. General observations principles of sterilization. Moist heat V. Nervous System. Dry heat Ssterilization. EO gas sterilization. H2O2 gas plasma capo sterilization.

## **SYLLABUS FOR PRACTICALS**

OSPE charts, Instruments

## **Paper-II : Principles of Anesthesia-II**

### **Regional Anaesthetic techniques.**

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

### **Anaesthesia for specialty Surgeries**

#### **NEURO ANAESTHESIA**

- Glasgow coma scale
- Premedication
- Special investigation - CT, Angiography and MRI
- Checklist
- Induction of a patient
- Reinforced Endotracheal tubes
- Positioning 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.
- Ruptures uterus
  - Ectopic Pregnancy

## **PAEDIATRIC ANAESTHESIA**

- Theatre setting
- Check list
- \* Fluid Calculation and administration
- 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
  - 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.

### **DAY CARE ANAESTHESIA**

- Special features
- Set up
- Advantages
- Disadvantages
- Complications
- Future

### **GERIATRIC ANAESTHESIA**

- Physiological changes
- Diseases of aging
- Nervous system
- Geriatric pharmacodynamics / pharmacokinetics
- Postoperative nervous system dysfunction.

### **ANAESTHESIA FOR TRAUMA & SHOCK**

- Resuscitation



- Pre-op investigation & assessment
- Circulatory management
- Management of anaesthesia
- Rapid sequence induction
- Other problems

## **THORACIC ANAESTHESIA**

- Pulmonary function tests
  - o Valsalva
  - o Vitalograph
- Preoperative preparation
- Premedication
- Check list
- Induction. Intubation
- Double lumen tubes
- monitoring
- Pain management
- Extubation
- ICU management

## **Postoperative problems**

- Nausea & Vomiting
- Sore throat
- Laryngeal edema, Bronchospasm
- Neurological complications.
- Awareness
- Vascular complications.
- Trauma to teeth
- Headache
- Backache
- Ocular complications
- Auditory complications

## **MAJOR CATASTROPHES**

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

## **SYLLABUS FOR PRACTICALS**

Instruments, OSPE charts

**B.Sc.DEGREE IN OPERATION THEATRE AND ANAESTHESIA TECHNOLOGY**  
**EXAMINATION PATTERN – I YEAR**

**B.Sc. in Operation Theatre and Anaesthesia Technology**

S.NO.	SUBJECTS	THEORY		PRACTICAL		VIVA		INTERNAL ASSESSMENT	
		MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1.	BASIC SCIENCES *	100	50	100	50	50	25	50	20
2.	BASICS OF COMPUTER SCIENCE AND ENGLISH **	100	50	100	50	50	25	50	25

\*Marks in Basic sciences to be allotted as Anatomy- 30% - Physiology -30% - Biochemistry – 20% & Pathology – 20%

\*\*Basics of Computer science and English will be internal paper – Institution will send the marks to the University.

**B.Sc. DEGREE IN OPERATION THEATRE AND ANAESTHESIA TECHNOLOGY**  
**EXAMINATION PATTERN – II YEAR**

S.NO	SUBJECTS	THEORY		PRACTICAL		VIVA		INTERNAL ASSESSMENT	
		MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1.	PHARMACOLOGY & MICROBIOLOGY	100	50	100	50	50	25	50	20
2.	MEDICINE & MEDICAL ETHICS	100	50	100	50	50	25	50	25

<b>3.</b>	<b>PRINCIPLES OF ANAESTHESIA- I</b>	<b>100</b>	<b>50</b>	<b>100</b>	<b>50</b>	<b>50</b>	<b>25</b>	<b>50</b>	<b>25</b>
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**B.Sc. DEGREE IN OPERATION THEATRE AND ANAESTHESIA  
TECHNOLOGY**

**EXAMINATION PATTERN - III YEAR**

S. N O.	SUBJECTS	THEORY		PRACTICAL		VIVA		INTERNAL ASSESSMENT	
		MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1.	STERILISATION PROCEDURES	100	50	100	50	50	25	50	20
2.	PRINCIPLES OF ANAESTHESIA - II	100	50	100	50	50	25	50	25

**POSTINGS DURING ONE YEAR INTERNSHIP**

1. Sterilisation room - 3 months.
2. Post -Operative room/ Recovery room – 3 months  
(Including Postings in Medical/Surgical Record room)
3. Surgical ICU - 3 months
4. Operation Theatre including
  - General surgery OT – 1 month Obstetrics & Gynecology
  - OT – 1 month Pediatrics OT –
  - 15 days Others – 15 days.

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