ELEMENTARY PHYSICS & CHEMISTRY (THEORY)
Course Code: PMS.001T
Credit Hours: 3
Semester: I

SECTION I: ELEMENTARY PHYSICS

UNIT – I: PHYSICAL WORLD
Different System of Units (CGS and SI)
Fundamental Quantity
SI Units
UNIT - II: MATTER AND ITS NATURE BEHAVIOUR
Matter – Solid, Liquid and Gas; Characteristics
Change in state of matter: Evaporation, condensation and sublimation
UNIT –III: MOTION
Rest and Motion
Speed and Velocity
Acceleration
UNIT – IV: FORCE AND LAWS OF MOTION
Balanced and unbalanced Force
First law of Motion
Second law of motion
Third Law of Motion
UNIT –V: OPTICS
Reflection of light
Refraction of light
Image formations (By mirror and lens)
Magnification, Power of a lens
Refraction and dispersion of light through a prism.
Scattering of light – blue color of the sky and reddish appearance of the sun at sunrise and sunset
UNIT – VI: ATOM AND NUCLEI
Composition and size of nucleus, atomic masses, isotopes, isobars; isotones.
Radioactivity – alpha, beta and gamma particles/rays and their properties
Applications of radioactivity.
Electromagnetic Waves.

SECTION II: ELEMENTARY CHEMISTRY

UNIT – I: SOME BASIC CONCEPTS OF CHEMISTRY

General Introduction: Importance and scope of chemistry.

Elements, Compounds, Mixture: Heterogeneous and homogenous

UNIT –II: STRUCTURE OF ATOM

Thompson Model & its Limitation

Rutherford's model & Its limitation

Bohr's Model & Its Limitation

Dalton's Atomic Theory

Concept of Shells and subshells & Orbital Rule

UNIT – III: MODERN PERIODIC TABLE

Significance & Classification upto 20 elements (Periodic Table)

Atomic Number, Valency & Electronic configuration, Atomic & molecular masses

Laws of Chemical Combination, atoms and molecules.

UNIT –IV: ACID, BASE AND SALT

Definitions and General Properties

Concept of pH and its importance in everyday life

UNIT – V: CHEMISTRY IN EVERYDAY LIFE

Chemicals in medicines – analgesics, tranquilizers, antiseptics, disinfectants, antimicrobials, antifertility drugs, antibiotics, antacids, antihistamines.

Chemicals in food – preservatives, artificial sweetening agents, elementary idea of antioxidants.

Cleansing agents – soaps and detergents, cleansing action.

SCHEME OF EXAMINATION - THEORY

Types of Questions	Total No. of Questions	No. of Questions to be attempted	Marks	Subtotal
SEC -A: MCQ's	10	10	1	10
SEC -B: Short Answer Questions	7	5	3	15
SEC -C: Short Essay	7	5	5	25
			TOTAL MARKS	**50**

HUMAN ANATOMY & PHYSIOLOGY (THEORY)
Course Code: PMS.002T
Credit Hours: 3
Semester: I

UNIT -I
Skin & sense organs- Eye, Ear, Nose, Tongue (taste buds).

UNIT - VI
Digestive system- Parts of gastrointestinal tract and associated glands. Digestion and absorption of food

UNIT -VII
Respiratory system- Parts of respiratory system. Functions of lungs, mechanism of breathing & exchange of gases in the lungs, Lung Capacity

UNIT -VIII
Urinary system- Parts of urinary system. Structure and function of kidney and urinary bladder, Mechanism of Urine Formation

UNIT - V
Circulatory system- Structure of heart, function of heart and blood vessels, Brief introduction of heart rate, Pulse rate, Blood Pressure

UNIT – X
Nervous system- Parts of Brain, Cerebrospinal Fluid (C.S.F), spinal cord. Neurons & its functions, functions of CNS, ANS,

UNIT - III
Skeletal System-Structure of Bones, Bones of cranium, face, vertebral column, Upper & lower limbs, fracture of bones, movements of joints.
Muscular System- Structure and types of muscles.

UNIT - IV
Reproductive system- Brief introduction of male & female reproductive organs and associated hormones.

SCHEME OF EXAMINATION - THEORY

Types of Questions	Total No. of Questions	No. of Questions to be attempted	Marks	Subtotal
SEC -A: MCQ's	10	10	1	10
SEC -B: Short Answer Questions	7	5	3	15
SEC -C: Short Essay	7	5	5	25
			TOTAL MARKS	**50**

INTRODUCTION TO ANESTHESIA TECHNOLOGY (THEORY)
Course Code: ANE.003T
Credit Hours: 3
Semester: I

UNIT- I

- Brief History of Anesthesia
- Anaesthesia- General Terminologies
- Brief Introduction to Patient preparation for anesthesia
- Introduction to General Principles of anaesthetic drugs

UNIT – II Anaesthesia Equipments

- Boyle's Machine & It's functioning
- Circuits and its types
- Gas cylinders & flow meters
- Carbon dioxide absorption canisters.
- Ambu bag & laryngoscope, endotracheal tubes
- Catheters, face masks, ventimasks

UNIT – III Anesthesia Techniques & Drugs

- General Principles- Pharmacological classification of Drugs, Route of drug administration, precautions in administration, prevention & treatment of poisoning adverse drug reaction.
- Sedatives & hypnotics, barbiturates, morphine & others.
- Antiallergic drugs
- Pre-anaesthetic medication
    - Local Aneasthesia - technique & agents
    - Spinal Aneasthesia - technique & agents
    - General Aneasthesia - technique & agents

INTRODUCTION TO ANESTHESIA TECHNOLOGY (PRACTICAL)
Course Code: ANE.003P
Credit Hours: 2

- Identification & demonstration of the working of equipments in anesthesia
- Instrument trolley setting for common aesthetic procedures
- Methods of scrubbing, donning of gown, gloves wearing, head cover & mask

SCHEME OF EXAMINATION - THEORY

Types of Questions	Total No. of Questions	No. of Questions to be attempted	Marks	Subtotal
SEC -A: MCQ's	10	10	1	10
SEC -B: Short Answer Questions	7	5	3	15
SEC -C: Short Essay	7	5	5	25
			TOTAL MARKS	**50**

SCHEME OF EXAMINATION - PRACTICALS

S. No.	Particulars	Marks
1	Log Book	5
2	Attendance	10
3	Internal (1st ,2nd Hourly & Mid-term)	10
4	Viva-voce	25
	TOTAL MARKS	**50**

GENERAL ANESTHESIA (THEORY)
Course Code: ANE.004T
Credit Hours: 3
Semester: I

UNIT - I
Drug toxicity, adverse drug reaction & Management
UNIT- II
Inhalational anesthetic agents: General principles.
UNIT- III
Pre -anesthetic medication.
UNIT- IV
Gases in Anaesthesia
UNIT- V
Muscle relaxants, analgesics
UNIT - VI
Complications of General Anaesthesia- intraoperative, immediate, post operative and post anesthetic care.

GENERAL ANESTHESIA (PRACTICAL)
Course Code: ANE.004T
Credit Hours: 2

- Identification Equipments used for General Anaesthesia
- Setting up the Boyle's machine & Breathing circuits for general anesthesia
- Trolley preparation for difficult airway
- Identification of gas cylinders
- Basic settings of ventilators for mechanical ventilation
- Technique of General Anaesthesia
- Management of the patient before , during & after the administration of G/A
- Use of Laryngoscope, Face masks & Suction apparatus

SCHEME OF EXAMINATION - THEORY

Types of Questions	Total No. of Questions	No. of Questions to be attempted	Marks	Subtotal
SEC -A: MCQ's	10	10	1	10
SEC -B: Short Answer Questions	7	5	3	15
SEC -C: Short Essay	7	5	5	25
			TOTAL MARKS	**50**

SCHEME OF EXAMINATION - PRACTICALS

S. No.	Particulars	Marks
1	Log Book	5
2	Attendance	10
3	Internal (1^{st} ,2^{nd} Hourly & Mid-term)	10
4	Viva-voce	25
	TOTAL MARKS	**50**

CENTRAL STERILE SERVICES DEPARTMENT (CSSD) PROCEDURES (THEORY)
Course Code: SUR.005T
Credit Hours: 3
Semester: I

UNIT –I
Waste disposal collection of used items from user area, reception protective clothing and disinfections sage guards
UNIT-II
Use of disinfectants; sorting and classification of equipment for cleaning purposes, sharps, blunt lighted.
UNIT –III
Cleaning process - use of detergents. 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.
UNIT-IV
Materials used for wrapping and packing /assembling pack contents. Types of packs prepared. Inclusion of trays and galliparts in packs. Method of wrapping.
UNIT –V
General observations principles of sterilization. Moist heat sterilization. Dry heat sterlization. EO gas sterilization. H_2O_2 gas plasma vapo sterilization.

CENTRAL STERILE SERVICES DEPARTMENT (CSSD) PROCEDURES (PRACTICAL)
Course Code: SUR.005P
Credit Hours: 2

- Conducted as per theory syllabus

SCHEME OF EXAMINATION - THEORY

Types of Questions	Total No. of Questions	No. of Questions to be attempted	Marks	Subtotal
SEC -A: MCQ's	10	10	1	10
SEC -B: Short Answer Questions	7	5	3	15
SEC -C: Short Essay	7	5	5	25
			TOTAL MARKS	**50**

SCHEME OF EXAMINATION - PRACTICALS

S. No.	Particulars	Marks
1	Log Book	5
2	Attendance	10
3	Internal (1^{st} ,2^{nd} Hourly & Mid-term)	10
4	Viva-voce	25
	TOTAL MARKS	**50**

ELEMENTARY BIOLOGY (THEORY)
Course Code: PMS.006T
Credit Hours: 2
Semester: I

UNIT – I: BIODIVERSITY

Need for classification, Characteristics of Life

Levels of Organization for Living things, Bionomial Nomenclature

Tools for study of Taxonomy: Museums, Zoos, Herberia, Botanical Gardens

Five Kingdom Classification - Salient features

UNIT – III: HUMAN PHYSIOLOGY

Digestion and absorption:

Alimentary canal and digestive glands; Role of digestive enzymes and gastrointestinal hormones; Peristalsis, digestion, absorption and assimilation of proteins, carbohydrates and fats;

Calorific value of proteins, carbohydrates and fats , Egestion.

Breathing and Respiration: Respiratory organs, Mechanism of breathing and its regulation in humans– Exchange of gases, transport of gases and regulation of respiration Body fluids and circulation.

Blood: Composition of blood, blood groups, coagulation of blood; Composition of lymph and its function;

Human circulatory system– Structure of human heart and blood vessels; Cardiac cycle, cardiac output, ECG; Double circulation

Excretory products and their elimination, Modes of excretion – Ammonotelism, ureotelism, uricotelism;

Human excretory system–structure and function; Urine formation, Osmoregulation; Regulation of kidney function– Renin-angiotensin, Atrial Natriuretic Factor, ADH and Diabetes insipidus

Locomotion and Movement: Types of movement – ciliary, flagellar, muscular;

Skeletal muscle – contractile proteins and muscle contraction; Skeletal system and its function

Neural control and coordination:

Neuron and nerves; Nervous system in humans– central nervous system, peripheral nervous system and visceral nervous system; Generation and conduction of nerve impulse; Reflex action.

Chemical coordination and regulation: Endocrine glands and hormones; Human endocrine system-Hypothalamus, Pituitary, Pineal, Thyroid, Parathyroid, Adrenal, Pancreas, Gonads; Mechanism of hormone action (Elementary Idea); Role of hormones as messengers and regulators, Hypo-and hyperactivity and related disorders

UNIT - V: ECOLOGY & ECOSYSTEM

Organism & Environment: Habitat & Niche

Population Interaction: Mutualism, Competition, Predation & Parasitism

Population Attributes: Growth Rate, Birth Rate, Death Rate

Ecosystem: Patterns, Components; Productivity& Decomposition; Energy Flow; Pyramids of number, Biomass, energy

Nutrient Cycling: Carbon, Phosphorus, Nitrogen

SCHEME OF EXAMINATION - THEORY

Types of Questions	Total No. of Questions	No. of Questions to be attempted	Marks	Subtotal
SEC -A: MCQ's	10	10	1	10
SEC -B: Short Answer Questions	7	5	3	15
SEC -C: Short Essay	7	5	5	25
			TOTAL MARKS	**50**

INTRODUCTORY BIOLOGY (THEORY)
Course Code: PMS.007T
Credit Hours: 2
Semester: I

UNIT-I: LIVING WORLD

- Introduction to Biology
- Branches of Biology:- Anatomy, Biochemistry, Physiology, Biophysics, Biotechnology, Botany, Cell Biology , , Epidemiology, Genetics, Histology, Homology, Microbiology, Pathology, Parasitological, Pharmacology, Physiology, Virology, Zoology, Molecular Biology, Mycology, Neurobiology, Developmental Biology.
- Scope of Biology & Career Options.
- Characteristics of Living Organisms: Elementary area of Metabolism, Transfer of energy at molecular levels, Open & Closer system, Homoeostasis, Growth & Reproduction, Adaptation, Survival & Death

UNIT –II: CELL AS A BASIC UNIT OF LIFE

Cell Theory

- Difference b/w Prokaryotic cell and Eukaryotic Cell
- Brief Introduction to the cell Organelles and their functions

UNIT –IV: CELL DIVISION

Brief Introduction

- Mitosis
- Meiosis

UNIT – V: MOLECULES OF CELL

- Carbohydrates: Classification& Functions
- Amino Acids(only names):Classification & Functions
- Proteins: Classification, structure & functions
- Lipids: Classification & Functions
- Enzymes: Classification, Properties & functions
- Vitamins: Classification
- Nucleic Acid: Types

UNIT – VI: GENETICS

DNA:

DNA as a genetic material

- Chemical properties of DNA
- Nitrogenous Bases(Purines and Pyrimidines)
- Watson & Crick Model of DNA
- Chargaff Rule

RNA:

- Types and their functions

- Difference between DNA & RNA

- Brief introduction to Transduction and Translation

SCHEME OF EXAMINATION - THEORY

Types of Questions	Total No. of Questions	No. of Questions to be attempted	Marks	Subtotal
SEC -A: MCQ's	10	10	1	10
SEC -B: Short Answer Questions	7	5	3	15
SEC -C: Short Essay	7	5	5	25
			TOTAL MARKS	**50**

ENVIRONMENTAL STUDIES (THEORY)
Course Code: PMS.008T
Credit Hours: 2
Semester: II

UNIT-I : NATURAL RESOURCES

Renewable and non-renewable resources: Natural resources and associated problems.

- Forest resources ,
- Water resources
- Mineral resources
- Food resources
- Energy resources

UNIT-II : ECOSYSTEMS

- Concept of ecosystems, Structure and function of an ecosystem.
- Producers, consumers and decomposers.
- Energy flow in the ecosystem.
- Food chains, food webs and ecological pyramids.

UNIT-III: ENVIRONMENTAL POLLUTION

- *Definition, Cause, effects and control measures of :* Air pollution, Water pollution, Soil pollution, Noise pollution, Thermal pollution
- Role of an individual in prevention of pollution.
- *Disaster management:* floods, earthquake, cyclone and landslides.

SCHEME OF EXAMINATION - THEORY

Types of Questions	Total No. of Questions	No. of Questions to be attempted	Marks	Subtotal
SEC -A: MCQ's	10	10	1	10
SEC -B: Short Answer Questions	7	5	3	15
SEC -C: Short Essay	7	5	5	25
			TOTAL MARKS	**50**

ANAESTHESIA EQUIPMENTS & TECHNOLOGY (THEORY)
Course Code: ANE.009T
Credit Hours: 3
Semester: II

UNIT- I : Medical Gas Supply
- Gas Cylinders
- Colour coding
- Cylinders and Cylinder valves
- Cylinder storage
- PIN INDEX System, alrams and safety devices

UNIT- II: Gas Administration Devices
- Simple oxygen administration devices
- Methods of controlling gas flow

UNIT- III: Oxygen Therapy
- Hypoxia, Goals of oxygen therapy
- Hazards of oxygen therapy

UNIT- IV: Anaesthesia Machine
- Hanger and yoke system
- Vaporizers – Types, hazards, maintenance, filling and draining.

UNIT- V: **Breathing System**
- Classification of breathing system
- Mapleson system
- Jackson Rees system of Bain circuit
- Non breathing valves – Ambu valves

UNIT- VI: **Gas Analysers Pulse Oximeter CO_2 Monitor**
- Pulse oximeters
- Capnographs

UNIT- VII: **Manual Resuscitators**
- Types of resuscitator bags
- Methods of increasing oxygen delivery capabilities while using oxygen with resuscitator bags.

ANAESTHESIA EQUIPMENTS & TECHNOLOGY (PRACTICAL)
Course Code: ANE.009P
Credit Hours: 2

- Observation & Demonstration of Preparation of Anaesthetic equipments , drugs & techniques
- Instrumental trolley setting for common anaesthetic procedures.
- Methods of sterilisation in OT- Autoclaving, Fumigation
- Identification & knowledge of equipments for anesthesia.

SCHEME OF EXAMINATION - THEORY

Types of Questions	Total No. of Questions	No. of Questions to be attempted	Marks	Subtotal
SEC -A: MCQ's	10	10	1	10
SEC -B: Short Answer Questions	7	5	3	15
SEC -C: Short Essay	7	5	5	25
			TOTAL MARKS	**50**

SCHEME OF EXAMINATION - PRACTICALS

S. No.	Particulars	Marks
1	Log Book	5
2	Attendance	10
3	Internal (1st ,2nd Hourly & Mid-term)	10
4	Viva-voce	25
	TOTAL MARKS	**50**

PRINCIPLES OF ANESTHESIA (THEORY)
Course Code: ANE.010T
Credit Hours: 3
Semester: II

UNIT-II: Anaesthesia Machine
- Boyles Machine
- Gas cylinders

UNIT-III: Breathing System
- General considerations: humidity & heat
- Common components - connectors, adaptors, reservoir bags
- Capnography
- 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

UNIT-IV: Face Masks & Airway Laryngoscopes
- Types, sizes
- Endotracheal tubes - Types, sizes.
- Cuff system
- Fixing, removing and inflating cuff, checking tube position complications.

UNIT-V: Monitoring
- ECG , Temperature, IBP ,CVP ,PA Pressure , LA Pressure

PRINCIPLES OF ANESTHESIA (PRACTICAL)
Course Code: ANE.010P
Credit Hours: 2

- Conducted as per theory syllabus

SCHEME OF EXAMINATION - THEORY

Types of Questions	Total No. of Questions	No. of Questions to be attempted	Marks	Subtotal
SEC -A: MCQ's	10	10	1	10
SEC -B: Short Answer Questions	7	5	3	15
SEC -C: Short Essay	7	5	5	25
			TOTAL MARKS	**50**

SCHEME OF EXAMINATION - PRACTICALS

S. No.	Particulars	Marks
1	Log Book	5
2	Attendance	10
3	Internal (1^{st} ,2^{nd} Hourly & Mid-term)	10
4	Viva-voce	25
	TOTAL MARKS	**50**

BASIC ANESTHETIC TECHNIQUES & COMPLICATIONS (THEORY)
Course Code: ANE.011T
Credit Hours: 3
Semester: II

UNIT- II:

- General Anesthesia
- Short review about stages of anaesthesia
- Old G/A Sp. Ether Anaesthesia (old anaesthesia technique)
- Modern Anaesthesia Balanced G/A
- Induced hypotensive GA
- Induced Hypothermic GA

UNIT- III:

- Local anesthesia
- Regional anesthesia

UNIT- IV:

- Bier's block
- N. blocks
- Field block
- Topical
- Surface
- Tumicent Anaesthesia (Liposuction)
- Hypotensive indural
- Hypothermic indural

UNIT- V:

- Inhalational agents: General principles and individual agents.
- Pre anaesthetic medication.
- Gases used in Anaesthesia- Sedatives and hypnotics, barbiturates.
- Intravenous Anaesthetics.
- Muscle relaxants.
- Difficult Airway, LMA,
- Tracheal Intubation – Oral / Nasotracheal /LMA
- Malignant Hyperpyrexia & its management resuscitation.

BASIC ANESTHETIC TECHNIQUES & COMPLICATIONS (PRACTICAL)
Course Code: ANE.011P
Credit Hours: 2

- Conducted as per theory syllabus

SCHEME OF EXAMINATION - THEORY

Types of Questions	Total No. of Questions	No. of Questions to be attempted	Marks	Subtotal
SEC -A: MCQ's	10	10	1	10
SEC -B: Short Answer Questions	7	5	3	15
SEC -C: Short Essay	7	5	5	25
			TOTAL MARKS	**50**

SCHEME OF EXAMINATION - PRACTICALS

S. No.	Particulars	Marks
1	Log Book	5
2	Attendance	10
3	Internal (1st ,2nd Hourly & Mid-term)	10
4	Viva-voce	25
	TOTAL MARKS	**50**

COMMUNICATION SKILLS
Course Code: PMS.012T
Credit Hours: 2
Semester: II

UNIT – I
Essentials of grammar
Parts of speech:

- Articles
- Nouns
- Pronouns
- Adjective
- Verb/Adverb
- Preposition, Conjuctions, Interjections

UNIT- II
Nature, scope & process of communication:

- Definition
- Process
- Various Models
- Elements
- Essential Flow of Communication
- Media of Communication
- Barriers/Factors inhibiting communication.

UNIT – III
Formal Conversations:
Meetings; Duties of participants; Interviews; Group Discussions.
UNIT- IV

- Essay & Precis Writing
- Comprehension

UNIT – V
Formal & Informal Letters.

SCHEME OF EXAMINATION - THEORY

Type of Questions	Total No. of Questions	No. of Questions to be attempted	Marks (each Question)	Subtotal
SEC –A (Comprehensive)	1	1	1	10
SEC – B (Short Answer)	8	5	2	10
SEC – C (Essay writing)	3	1	10	10
SEC-D (Precis writing)	1	1	10	10
SEC-E (Letter writing)	2	1	10	10
			Total Marks	**50**

COMPUTER BASICS (THEORY)
Course Code: PMS.013T
Credit Hours: 2
Semester: II

UNIT –I

Input and Output UNITs: Their functional characteristics, main memory, cache memory read only memory, overview of storage devices – floppy disk, hard disk, compact disk, tape.

Computer Networks and Communication: Network types, Network topologies, Network communication devices, Physical communication media, TCP/IP.

Internet and its Applications: E-mail, Telnet, FTP, WWW, Internet chatting

UNIT-II

World Wide Web (www) - History, Working, Web Browsers, Its functions, Concept of Search Engines, Searching the Web, HTTP, URLs, Web Servers, Web Protocols.

UNIT-III

MS Office: word, paint ,power point & excel; acrobat reader

UNIT-IV

Computer Viruses : Introduction, working of viruses, Categorization of computer viruses, Antivirus & its working, Virus identification techniques.

UNIT –V

Information system : definition, components & types of information system

Operational support systems & support to knowledge work

Management support systems

SCHEME OF EXAMINATION - THEORY

Types of Questions	Total No. of Questions	No. of Questions to be attempted	Marks	Subtotal
SEC -A: MCQ's	10	10	1	10
SEC -B: Short Answer Questions	7	5	3	15
SEC -C: Short Essay	7	5	5	25
			TOTAL MARKS	**50**

MEDICINES RELEVANT TO ANESTHESIA TECHNOLOGY (THEORY)
Course Code: ANE.014T
Credit Hours: 3
Semester: III

Description of the following diseases & their management during pre & post operative procedures

- Diabetes mellitus
- Hypertension
- Ischaemic heart disease
- Obesity
- Elderly patient
- Pregnancy
- Shock
- COPD
- Chronic renal failure
- Chronic liver disease/failure
- Anaemia
- Epilepsy

MEDICINES RELEVANT TO ANESTHESIA TECHNOLOGY (PRACTICAL)
Course Code: ANE.014P
Credit Hours: 2

- Conducted as per theory syllabus

SCHEME OF EXAMINATION - THEORY

Types of Questions	Total No. of Questions	No. of Questions to be attempted	Marks	Subtotal
SEC -A: MCQ's	10	10	1	10
SEC -B: Short Answer Questions	7	5	3	15
SEC -C: Short Essay	7	5	5	25
			TOTAL MARKS	**50**

SCHEME OF EXAMINATION - PRACTICALS

S. No.	Particulars	Marks
1	Log Book	5
2	Attendance	10
3	Internal (1st ,2nd Hourly & Mid-term)	10
4	Viva-voce	25
	TOTAL MARKS	**50**

ANAESTHESIA FOR SPECIALITY SURGERIES (THEORY)
Course Code: ANE.015T
Credit Hours: 3
Semester: III

UNIT-I: Neuro Anaesthesia
- Glassgow coma scale
- Premedication
- Special investigation - CT, Angiography and MRI
- Air embolism

UNIT-II: Obstetric Anaesthesia
- Regional vs general anesthesia
- Induction / maintenance and recovery.
- Resuscitation of the new born, apgar score
- Spinal anaesthesia
- Epidural anaesthesia

UNIT-III: Pediatric Anaesthesia
- Premedication - modes
- Induction
- Intubation
- Reversal & extubation
- Pain management

UNIT-IV: ENT Anaesthesia
- Anaesthesia for adenotonsillectomy
- Anaesthesia for mastoidectomy
- Bronchoscopy and oesophagoscopy

UNIT-V: Cardiac Anaesthesia
- Special investigations -echo cardiography, angiography
- Premedication
- Setting up of monitoring system
- Monitoring - invasive and non – invasive
- Chest Tube Management and monitoring

ANAESTHESIA FOR SPECIALITY SURGERIES (PRACTICAL)
Course Code: ANE.015P
Credit Hours: 2

- Conducted as per theory syllabus

SCHEME OF EXAMINATION - THEORY

Types of Questions	Total No. of Questions	No. of Questions to be attempted	Marks	Subtotal
SEC -A: MCQ's	10	10	1	10
SEC -B: Short Answer Questions	7	5	3	15
SEC -C: Short Essay	7	5	5	25
			TOTAL MARKS	**50**

SCHEME OF EXAMINATION - PRACTICALS

S. No.	Particulars	Marks
1	Log Book	5
2	Attendance	10
3	Internal (1^{st} ,2^{nd} Hourly & Mid-term)	10
4	Viva-voce	25
	TOTAL MARKS	**50**

INTRODUCTION TO OBSTETRICS & GYNECOLOGY (THEORY)
Course Code: OBG.016T
Credit Hours: 3
Semester: III

UNIT-I: Obstetrics

Normal delivery, forceps delivery, episiotomy, Caesarian Section, Instruments of common obstetrics procedures or surgery e.g. Episiotomy, forceps delivery, Embryotomy, IUCDs, LSCS ; Laproscopy Instruments & Procedure, Caesarian Section

- Twin pregnancy – Diagnosis & management
- Birth control methods & Procedures
- Medical termination of pregnancy.
- Instruments & Techniques of MTP

UNIT- II : Gynecology

Clinical methods in gynaecological examination

- Common diseases of vulva, vagina
- Disorders of menstruation
- Various operative positions

INTRODUCTION TO OBSTETRICS & GYNECOLOGY (PRACTICAL)
Course Code: OBG.016P
Credit Hours: 2

- Identification of various instruments & understanding the procedures.
- Demonstration of equipment & surgical techniques in Obstetrics & Gynaecology.

SCHEME OF EXAMINATION - THEORY

Types of Questions	Total No. of Questions	No. of Questions to be attempted	Marks	Subtotal
SEC -A: MCQ's	10	10	1	10
SEC -B: Short Answer Questions	7	5	3	15
SEC -C: Short Essay	7	5	5	25
			TOTAL MARKS	**50**

SCHEME OF EXAMINATION - PRACTICALS

S. No.	Particulars	Marks
1	Log Book	5
2	Attendance	10
3	Internal (1st ,2nd Hourly & Mid-term)	10
4	Viva-voce	25
	TOTAL MARKS	**50**

BASIC INTENSIVE CARE & RESUSCITATION (THEORY)
Course Code: ICU.017T
Credit Hours: 3
Semester: III

UNIT-I: Monitoring and Diagnostic Procedures in I.C.U.

- Central Venous access
- Invasive hemodynamic monitoring
- ECG: monitoring, different types of E.C.G, recording of E.C.G. of the patient
- *Defibrillators :* Types, Principles and mechanism of the defibrillator Uses and safety precaution during use .

UNIT-II: General Care of Patient in I.C.U.

- Care of unconscious adult and pediatric patients.
- Feeding Ryle's tube insertion
- Suctioning and posturing of semiconscious and unconscious patients
- Care of mechanically ventilated patient
- Management of asepsis, acute poisoning, critically ill patient, disaster management, Nutrition, Pollution, Monitoring
- Tracheostomy, humidification
- Vascular lines - arterial, venous line
- Physiotherapy - chest physiotherapy

UNIT-III: Infectious Diseases in I.C.U.

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

UNIT-IV: Cardiovascular Failure

- Inotropic support
- Vasodilator drugs
- Cardio pulmonary Resuscitation (CPR) -Basic life support, Advance life support- Mouth to Mouth, Mouth to E.T. tube , Ambu bag , Different airways.

BASIC INTENSIVE CARE & RESUSCITATION (PRACTICAL)
Course Code: ICU.017P
Credit Hours: 2

- Conducted as per theory syllabus

SCHEME OF EXAMINATION - THEORY

Types of Questions	Total No. of Questions	No. of Questions to be attempted	Marks	Subtotal
SEC -A: MCQ's	10	10	1	10
SEC -B: Short Answer Questions	7	5	3	15
SEC -C: Short Essay	7	5	5	25
			TOTAL MARKS	**50**

SCHEME OF EXAMINATION - PRACTICALS

S. No.	Particulars	Marks
1	Log Book	5
2	Attendance	10
3	Internal (1^{st} ,2^{nd} Hourly & Mid-term)	10
4	Viva-voce	25
	TOTAL MARKS	**50**

COMMUNITY HEALTH
Course Code: PMS.018T
Credit Hours: 2
Semester: III

- General concepts of health and diseases with reference to natural history of disease with pre-pathogenic and pathogenic phase. The role of socio-economic and cultural environment in health and diseases-Epidemiology and scope.
- Public health administration-An overall view of the health Administration set up at centre and state level.
- The National Health Programmes- National Health programmes including tuberculosis, malaria, MCH and HIV/AIDS.
- Health problems in vulnerable groups-Pregnant and lactating women and infants and school going children-occupational groups, geriatrics.
- Occupational Health- Definition, scope-Occupational diseases, prevention of occupational diseases and hazards.
- Social security and other measures for the protection of occupational hazards, accidents and disease. Details of compensation acts.
- Family planning objectives of National family planning methods. A general idea of advantages and disadvantages of the method.
- Mental Health- community aspects of mental health; role of physiotherapists, therapists in mental health problems such as mental retardation etc.
- Communicable disease-An overall view of the communicable disease. Classification according to the principal mode of transmission. Role of insects and their vectors.
- International health agencies.

SCHEME OF EXAMINATION - THEORY

Types of Questions	Total No. of Questions	No. of Questions to be attempted	Marks	Subtotal
SEC -A: MCQ's	10	10	1	10
SEC -B: Short Answer Questions	7	5	3	15
SEC -C: Short Essay	7	5	5	25
			TOTAL MARKS	**50**

NUTRITION
Course Code: PMS.019T
Credit Hours: 2
Semester: III

- Introduction to science of nutrition
- Food pattern and its relation to health
- Factors influencing food habits, selection and food stuffs
- Food selection, storage & preservation
- Classification of nutrients – macronutrients and micronutrients
- Proteins – types, sources requirements and deficiencies of proteins
- Carbohydrates sources, requirements & efficiency
- Fats – types, sources, requirements, deficiency and excess of fats
- Water – sources of drinking water, requirements, preservation of water
- Minerals – types, sources, requirements deficiencies of minerals
- Vitamins – types, sources, requirements deficiencies of vitamins
- Planning diets including renal diets

SCHEME OF EXAMINATION - THEORY

Types of Questions	Total No. of Questions	No. of Questions to be attempted	Marks	Subtotal
SEC -A: MCQ's	10	10	1	10
SEC -B: Short Answer Questions	7	5	3	15
SEC -C: Short Essay	7	5	5	25
			TOTAL MARKS	**50**