



**OFFICE OF THE I/C CONTROLLER OF EXAMINATION
GOVERNMENT MEDICAL COLLEGE BARAMULLA**

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Subject: Syllabus for written examination for various posts.

Notice

Government Medical College Baramulla has advertised various posts vide **Advertisement No. 09 of 2023 Dated: 19-06-2023**. Accordingly, the syllabus for the posts, advertised vide aforementioned advertisement notice is hereby notified as per the details given in **Annexure "A" to "G"** to this notice.

S No	Name of Post	Syllabi annexed as
01	Junior Staff Nurse	Annexure "A"
02	Staff Nurse	
03	Public Health Nurse	
04	Psychiatric Social Worker	Annexure "B"
05	Nursing and Paramedical Staff/ Technical Assistant/Technician	Annexure "C"
06	Clinical Psychologist	Annexure "D"
07	Theatre Assistant/Technician (ENT/Surgery)	Annexure "E"
08	Radiographic Technician	Annexure "F"
09	Clinical Staff for Casualty Bed	Annexure "G"

**I/C Controller Examinations
Govt. Medical College Baramulla**

No. GMC/BLA/Exam/2023/ 141-45

Dated: 10-08-202

Copy to:

1. Administrative Secretary, H&ME, UT of J&K.
2. Principal Govt. Medical College Baramulla for the favour of information.
3. Administrative Officer Govt. Medical College Baramulla for information.
4. I/C Website, Government Medical College Baramulla.
5. Office Copy.

Anatomy and Physiology (Marks 10)

- UNIT-1 Introduction to anatomical terms
- UNIT-II Organization of body cells tissues. organs. systems. membranes and glands
- UNIT-III Skeletal system
- UNIT-IV Cardio-vascular system
- UNIT-V Respiratory system
- UNIT-VI Digestive system
- UNIT-VII Excretory system
- UNIT-VIII Sense organs

Community Health Nursing – I (Marks 10)

- Unit- I Introduction to community Health and community Health Nursing
- Unit-II Community health nursing process
- Unit- III Health Assessment
- Unit- IV Family Health Nursing care
- Unit-V Family health *care* settings
- Unit- VI Referral systems
- Unit-VII Minor Ailments

Fundamentals of Nursing (Marks 15)

- Unit-I Introduction to Nursing
- Unit - II Nursing care of the patient/ Client
 - Bed and Bed Making
 - Maintenance of therapeutic environment Temperature, Light, noise and humidity. Psycho Social Environment
 - Nursing Process and Nursing *care* Plan
 - Discharging a patient
- Unit - III Basic Nursing care and Needs of the patient:
 - Nutritional needs.
 - Elimination needs
 - Safety needs
 - Activity and Exercises
 - Physical Comforts:
 - Moving, shifting and lifting of patient

- Unit - IV Therapeutic Nursing Care and Procedures Asepsis
 - Care and Sterilization of:
 - Care of Respiratory System
 - Care of Gastro Intestinal Tract
 - Care of Genito Urinary System
 - Care of Skin and Mucous Membranes

Medical Surgical Nursing - I

(Marks 10)

- Unit - I Introduction
- Unit - II Nursing Assessment
- Unit - III Patho Physiological Mechanism of Disease
- Unit - IV Nurse's role In Management of Fluids: Electrolyte and Acid Based Balance
- Unit - V Management of patients in pain
- Unit – VI- Management of patient undergoing surgery
 - Intra operative Management
 - Post- operative management- Immediate and Routine
- Unit - VII Nursing management of patient with impaired respiratory function and gaseous exchange
- Unit - VIII Nursing Management of Patients with Digestive and Gastro Intestinal Disorders
- Unit - IX Nursing Management of patients with renal and urinary disorders
- Unit - X Emergency Management

Paediatric Nursing

(Marks 10)

- Unit - I Introduction
- Unit - II The Newborn
- Unit - III The Healthy Child
 - The Infant

- Health Promotion during infancy
- The Toddler
- Unit - IV The Sick Child
 - Nursing interventions adaptations In nursing care of sick child
- Unit - V Behavioral Disorders and common Health Problems during Childhood, their prevention, Medical and Nursing Management.
 - Infancy
 - Early Childhood
 - Middle Childhood
 - Later Childhood
- Unit - VI Children with congenital Defects / Mal formations

Mental Health and Psychiatric Nursing

(Marks 10)

- Unit - I Introduction
- Unit - II Mental Health Assessment
- Unit - III Community Mental Health
- Unit: - IV Psychiatric Nursing Management
- Unit-V Mental disorders and Nursing Interventions.,
 - Functional Mental Disorders
 - Definition, etiology, signs; symptoms, medical and nursing management of:
- Unit - VI Psychiatric Emergencies and Crisis Intervention

Medical Surgical Nursing – 2

(Marks 10)

- Unit-I oncology nursing
 - Nursing management of patients receiving:
- Unit-II Nursing Management of patients with diseases of male genitor urinary tract.
- Unit-III Nursing management of patients with disorders of breast.
- Unit –IV Nursing management ,of patients with cardio vascular ,circulatory and hematological disorders.
- Unit –V Nursing management of patient with communicable diseases.
- Unit – VI Nursing Management of patients with sexually transmitted diseases
- Unit- VII Nursing Management of patients with Musculo. Skeletal Disorders and diseases.

Community Health Nursing- 2

(Marks 10)

- Unit - I Health system in India (Organizational set-up)
- Unit –II Health care services in India
- Unit - III Health Planning in India
- Unit- IV Specialized community Health Services and nurse's role
- Unit-V Nurse's Role in National Health Programmes
- Unit- VI Vital Health Statistics

Midwifery

(Marks 15)

- Unit - I Introduction
- Unit - II Reproductive system
- Unit - III Embryology and foetal development
- Unit - IV Nursing Management of Pregnant Women
 - Investigations.
- Unit- V Nursing Management of women In Labour
 - A. First Stage of Labour
 - B. Second Stage of Labour
 - C. Third Stage of Labour
 - D.. Conduct of Home Delivery
- Unit- VI Complications of pregnancy and its management
- Unit – VII High Risk pregnancy and Its management
 - Osteomalacia, Sexually Transmitted Diseases, AIDS.
- Unit - VIII High Risk Labour and Its management
- Unit IX Complications of Puerperium and Its management
- Unit - X Obstetric operations
- Unit - XI Drugs used In obstetrics

Psychiatric Social Worker**Total 100 Marks**

Unit 1	10 Marks
1. Society, Community, Association.	
2. Social Stratification: Caste, Class and Social Stratification in India.	
3. Social Institutions: Norms, Values, Folkways and Mores	
4. Marriage, Kinship and Family	
Unit 2	10 Marks
1. Gender inequality and Issues.	
2. Stages and Theories of Human Development (Freud, Erikson,)	
3. Socialization and its Theories	
4. Anxiety Disorders: Phobia, OCD, GAD, Panic Disorder, PTSD	
Unit 3	10 Marks
1. Theories of Economic Development	
2. Indicators of Social Development	
3. Population Growth Issues and Challenges	
4. Rural Development Programmes (1990 onwards)	
Unit 4	10 Marks
1. United Nations Organization: Structure and function	
2. Non Alignment Movement and its Genesis	
3. Fundamental rights, Fundamental duties and Directive principle of State Policy	
4. Democracy, Liberty, Equality and Justice	
Unit 5	10 Marks
1. Panchayati Raj System	
2. Social Networking and its Impact	
3. Basic Computer Applications (Elementary knowledge)	
4. Macdonalisation and its effect	
Unit 6	10 Marks
1. Concept of social work: Philanthropy and Charity	
2. Social work and its Relation with other Disciplines	
3. Social Religious Movements	
Unit 7	10 Marks
1. Hindu Reform Movement	
2. Land Reform Movement in Kashmir	
3. Major Peasant and Tribal Movements	
4. Spread of Modern Education.	
Unit 8	10 Marks
1. Human rights: Concept and Evolution	

2. Universal Declaration of Human rights
3. Women Rights
4. Child Rights

Unit 9

10 Marks

1. Poverty and Unemployment
2. Population Explosion, Global Warming and Climate Change
3. Drug Addiction ,Child Abuse, Delinquency
4. Trafficking, Beggary, Corruption.

Unit 10

10 Marks

1. Female foeticide and infanticide
2. Child and Women Welfare Schemes
3. Old age and Disability Schemes.
4. Health and Family Welfare Programmes

NURSING AND PARAMEDICAL STAFF / TECHNICAL ASSISTANT/TECHNICIAN

➤ Marks :-100

➤ Time :- 2.00 Hours

➤ Anatomy and Physiology, Public Health & Hygiene, Diseases. (Marks 15)

- Elementary Physics and Chemistry
- Characteristics of living matter
- The structure of living matter
- The Tissues
- Systems and various parts of Human Body
- Development and types of Bones
- Bones of Head and Trunk
- Bones of the limb
- Joints and Articulations
- Structure and action of Muscles.
- The Chief Muscles of the Body
- The Blood
- The Heart and Blood vessels
- The Circulatory System
- The Lymphatic System
- The Respiratory System
- The Digestive System
- The Liver, Biliary System and Pancreas
- Nutrition and Metabolism
- Endocrine Glands and Exocrine Glands
- The Urinary System
- The Nervous System
- The Ear
- The Eye
- The Skin
- The Reproductive System etc.

National Health Programmes :- These should be practical internship training for six months as recommended by PCI 1080 hours, after two years successful by course before Diploma Pharmacy is awarded.

➤ Public Health and Hygiene. (Marks 15)

Public Health :-

- History and Development
- Modern concept of public health and comprehensive health care
- Various Health Committees and their recommendations.
- Five Year plans priorities.
- Allocation for medical and Health services.
- Cost analysis of Medical and Health care.
- Health and Family Planning Organisations setup at the National
The State, The District and Block levels functions of Primary Health Centre

Diseases :-

- Definition
- Concept and Practice.
- Measures and disease frequency investigation of an outbreak and control field trials.
- Insecticides and resistance, sterilization and disinfection, epidemiological methods and approaches.

➤ **Basic Medical Information Drugs & Antibiotics Basic Medical informations, Drugs & Antibiotics their preparation & Uses. :-**

Marks 15)

- Kinds of drugs, characteristics of drugs, Balsems, Gums etc.
- Pharmaceutical Process and Methods
- General directions on dispensing, weighing and measuring. How prescriptions are written, prescription reading. How to calculate doses weights and measures, formulae for converting from one scale to other abbreviations used in prescriptions.
- Doses of drugs, pharmacoepial preparation and their doses, incompatibility, physical, chemical physiological and therapeutical.
- **Suppositories :-** How to prepare suppositories of special medicines pessaries, bougies, plasters etc.
- Ointments, Spray solutions or Nebulas, Inhalations, General rule about preparation of Mixtures.
- Ordinary bazaar medicines, their recognition, doses and uses.

➤ **Records Keeping:**

(Marks 05)

Stores Records & Procedures :- Clerical procedure in the good inward section. Records and procedures in main stores, classification and codification, keeping of stocks books, preparation of indents and methods of storing drugs.

➤ **First –AID & Home Nursing : Health Education including different types of Bandages, Emergency Health Care Services, Sterilization process & Disinfection procedures.** **(Marks 10)**

- Outline of the First –Aid
- Structure and Functions of the body.
- Dressing and Bandages (Use of Triangular Bandages and Cotton Roller Bandage, Rubber Bandage and different types of Dressing.
- Cardio- pulmonary resusciration.
- Wounds.
- Haemorrhage.
- Shock
- Electric Stock
- Different methods of artificial respiration
- Asphyxia

- Fractures and Dislocation
- Unconsciousness and Fainting
- Epilepsy and Hysteria
- Poisons including food poisoning
 - **Common Conditions :**
 - Foreign body in ear, eye and nose
 - Cramps
 - Frost – Bite
 - Bites and Stings
 - Epistaxis
 - Snake Bite
 - Dog Bite
- Transport of injured persons
 - **Use of Common medicines.**

➤ **Home Nursing**

(Marks 10)

❖ **Introduction to Home Nursing :-**

- Nurse
- Sick Room
- Bed Making
- Patient's Toilet
- Observation of the Sick
- Infection
- Surgical Techniques
- Diet
- Medicines
- Special Conditions & Treatments
- Bandaging
- Further Observations
- Immunity & Infectious Diseases
- Care of the Aged and Long term patient Person
- Care of the Mentally Ill Healthy Patient
- Special Drugs their Control & Administration
- Preparation of the Patient for Operation and the after care
- Shock and Blood Transfusion
- Special Treatment
- Nursing in Special Diseases
- The Hospital Services
- Preparation for Special Treatment
- Child Birth and Its Management.

➤ **Health Education**

(Marks 05)

- Health Education Principles, Ethics, Attributes of health educator, essential steps and introduction to the main methods in health education. History development and growth of health education in India. Various methods of Health Education.

- **Sterilization & Disinfection** **(Marks 10)**
 - Physical, Chemical and Mechanical Methods etc. Disposal of contaminated Media, Sterilization of Syringes, Glass Wares, apparatus etc.
- **Surgical Instruments, their names & uses, Preparation of patient for Operation, Pre & Post Operative patient care:** **(Marks 15)**

Surgical Instruments (Their Names & Uses):-

- Instruments for general surgery.
- Operation of the face and Neck
- Operations of the Nose, Throat and Ear
- Ophthalmic Surgery
- Operations on the chest
- Operations on the Genito – Urinary Tract
- Gynecological and Obstetric Operations
- Orthopaedic Operations
- Neuro-Surgical Operations
- Operations on the Cascular System
- Trauma Surgery

Preparation of Instruments Tray :-

- Major Procedures Tray
- Basic / Minor procedures tray
- Limited procedures tray
- Thyroid Tray
- Long Instruments tray
- Biliary Tract Procedures tray
- Choledochoscopy tray
- Basic rigid Signoidoscopy tray
- Gastrointestinal procedures tray
- Rectal Procedures tray

Gynecologic and Obstetric Trays :-

- Dilatation of the Cervix and Curettage of the Uterus (D&C) tray
- Cervical Cone Tray
- Laparoscopy tray
- Abdominal Hystrectomy tray
- Caesarian Section tray
- Vaginal Hysterectomy tray

Genitourinary Trays :-

- Vasectomy tray
- Open Prostatectomy tray

- Kidney tray
- Thoracic Trays
- Mediastinoscopy tray
- Thoractomy tray
- Pcemaker tray

Cardiovascular Trays :-

- Vascular procedures tray
- Vascular shunt tray
- Cardiac procedures tray

Orthopaedic Trays :-

- Basic Orthopaedic procedure tray
- Minor Orthopaedic procedures tray
- Hip replacement tray
- Knee or Ankle Anthroscopy tray

Neurologic Procedures Tray :-

- Craniotomy tray
- Laminectomy tray

Otorhinolarngologic (ENT Trays) :-

- Basic Ear procedures tray
- Nasal procedures tray
- Myringotomy tray
- Tonsillectomy and Adenoidectomy Tray
- Trachestomy tray
- Antral Puncture tray

Ophthalmic Trays :-

- Basic eye procedures tray
- Eyelid and Conjunctival procedures tray
- Basic Eye Muscle procedures tray
- Dacryocystrohinostomy tray
- Corneal Procedures tray
- Cataract Extraction and Lens procedures tray
- Glaucoma procedure tray
- Basic Eye procedures Microscope tray
- Retinal procedures tray

Pediatric Trays :-

- Pediatric major procedures trays
- Pediatric minor procedures trays
- Pediatric Gastrointestinal procedure trays

➤ **Preparation of Patient for Operation, Pre & Post Operative Patient Care:-**

Pre-Operative Considerations :-

Psychological support of the Surgical patient.

Protection of the Patient in Surgery :-

- Admission Procedure
- Transfer Procedure Position
- Environmental Controls
- Electro Surgery
- Operative Records
- Counting Procedure
- Sterilization
- Emergencies and Disasters



Safety for Medical Assistant, Pharmacist in a Operation Theatre :-

- In Service Education.
- Body Mechanic
- Fatigue factors
- Radiation Safety
- Infection Control
- Chemical Hazards.

Clinical Psychologist

Psychosocial Foundation of Behavior and Psychopathology**15 Marks**

- Introduction
- Mental health and illness
- Epidemiology
- Self and relationships
- Family influences
- Societal influences
- Disability
- Rehabilitation
- Policies and Acts

Psychopathology**05 Marks**

- Introduction to psychopathology
- Psychological theories
- Indian thoughts

Statistics and Research Methodology**25 Marks**

- Introduction
- Sampling
- Concept of probability
- Hypothesis testing
- Tests of significance - Parametric tests:
- Tests of significance - Non-parametric tests
- Experimental design
- Epidemiological studies
- Multivariate analysis
- Sample size estimation
- Qualitative analysis of data
- Use of computers
- Signs and symptoms
- Psychoses
- Neurotic, stress-related and somatoform disorders
- Disorders of personality and behavior
- Organic mental disorders
- Behavioral, emotional and developmental disorders of childhood and adolescence: types, clinical features, etiology and management.

- Mental retardation
- Neurobiology of mental disorders
- Therapeutic approaches
- Consultation-liaison psychiatry
- Special populations/Specialties

Biological Foundations of Behavior

10 Marks

(Anatomy, Physiology and Biochemistry)

- Anatomy of the brain
- Structure and functions of cells
- Biochemistry of the brain
- Neurobiology of sensory-motor systems and internal environment
- Regulation of Internal Environment
- Neurobiology of Behaviour
- Neurotransmitters and behavior

Neuropsychology

10 Marks

- Introduction
- Temporal lobe syndrome
- Parietal and occipital lobe syndromes
- Neuropsychological profile of neuro-psychiatric conditions
- Functional human brain mapping
- Neuropsychological assessment
- Neuropsychological rehabilitation

Psychotherapy and Counseling

20 Marks

- Introduction to Psychotherapy
- Therapeutic Relationship
- Interviewing
- Affective psychotherapies
- Behavior therapies
- Cognitive therapies
- Systemic therapies
- Physiological therapies

- Counseling
- Therapy in special conditions
- Therapy with children
- Psychoeducation (therapeutic education)
- Psychosocial rehabilitation
- Indian approaches to Psychotherapy
- Contemporary issues and research

Behavioral Medicine

15 Marks

- Introduction
- Central nervous system
- Cardiovascular system
- Respiratory system
- Gastrointestinal system
- Genitourinary/renal/reproductive system
- Dermatology
- Oncology
- HIV/AIDS
- Pain
- Terminally ill

THEATRE ASSISTANT/ Technician (ENT/Surgery)

Marks :-100
Time :- 2.00 Hours

➤ Anatomy and Physiology

(Marks 10)

- ✓ The Tissues
- ✓ Systems and various parts of human body
- ✓ Development and types of Bones
- ✓ Bones of head & trunk
- ✓ Bones of the limb
- ✓ Joints or Articulations
- ✓ The Chief Muscles of the body
- ✓ The Blood
- ✓ The heart and Blood Vessels
- ✓ The Circulation System
- ✓ The Lymphatic System
- ✓ The Respiratory System
- ✓ The Digestive System
- ✓ The Liver, Billiary System and Pancreas
- ✓ Nutrition and Metabolism
- ✓ The Urinary System
- ✓ The Ear
- ✓ The Eye
- ✓ The Skin

Surgical Instruments and Surgical Procedures

(Marks 40)

- **Pre – Operative Consideration**
 - Psychological support of the surgical patient.
- ✓ **Protection of the Patient in Surgery**
 - Admission Procedure
 - Transfer Procedure Position
 - Environmental Controls
 - Electro-Surgery
 - Operative Records
 - Counting Procedure
 - Sterilization
 - Emergencies and Disasters.

- **Surgical Instruments**
 - Instruments for General Surgery
 - Operation of the face and neck
 - Operations of the Nose, Throat and : Accessory Nasal Sinuses
 - Ophthalmic surgery
 - Sinuses, Ear & throat
 - Operations of the Chest, Operations on the Genito-Urinary Tract
 - Gynecological and Obstetric Operations
 - Orthopedic Operations
 - Neuro-surgical Operations
 - Radium Insertion
 - Traumatic Surgery

✓ **Abdominal Extraintestinal Surgery**

- Abdominal laprotomy
- Abdominal Herniography
- Cholecystectomy
- Drainage of Pancreatic Cyst (Pseudocyst)
- Pancreaticoduodenectomy (Whipples procedure)
- Pancreatectomy
- Drainage of Abscess (es) in the region of liver
- Hepatic Resection
- Splenectomy.

➤ Gastrointestinal Surgery

- Gastrectomy
- Small Bowel Resection
- Cutaneous ileostomy
- Appendectomy
- Haemorrhoidectomy
- Pilonidal Cystectomy and Sinusotomy

✓ **Gynaecologic and Obstetric Surgery**

- Dilatation of the Cervix and Curettage of the Uterus (D&C)
- Conization of the Uterine Cervix
- Marsupialization of Bartholin's Duct Cyst
- Abdominal Ligabion (Different Procedures)
- Anterior and /or Posterior Colporrhaphy
- Laparoscopy
- Total Abdominal Hysterectomy
- Spingo-Oophorectomy
- Tuboplasty of the Fallopian Tubes
- Caesarian Section.

Genitourinary Surgery

- Hypospadias repair
- Epispadias repair
- Hydrocolectomy
- Vasectomy
- Orchiectomy
- Transurethral Resection of the Prostate
- (TURP) and /or Lesions of the Bladder or Bladder Neck (TURB)
- Nephrectomy
- Upper Tract Urolithotomy (Ureterolithotomy, Pyelolithotomy, Nephrolithotomy)
- cutaneous ureterostomy
- Extracorporeal shock wave Lithotripsy (ESWL)
- Ultrasonic Lithotripsy

✓ Thoracic Procedures

- Bronchoscopy
- Pulmonary Lobectomy
- Decortication of the Lung

✓ Orthopaedic Surgery

- Open reduction of a carpal Bone Fracture
- Excision of a Ganglion
- Carpal tunnel Release
- Open reduction of the Humerus
- Open reduction of the Radius and /or Ulna
- Total knee replacement
- Open reduction of the Tibial shaft
- Bunionectomy
- Metatarsal Head Resection
- Procedure for correction of scoliosis
- Amputation of lower Extremity

✓ Neurological Surgery

- Craniotomy
- Cranioplasty
- Ventricular Shunts
- Laminectomy

✓ Plastic Surgery

- Cleft Lip repair
- Cleft Palate repair
- Reduction of Nasal Fracture
- Reduction of Mandibular Fracture
- Reduction of a Zygomatic Fracture
- Open reduction of an Orbital Floor Fracture
- Rhinoplasty

✓ Otorhinolaryngologic (ENT) Surgery

- Myringotomy
- Mastoidectomy

- Tympanoplasty
- Stapedectomy
- Submucous Resection of the Nasal Septum(SMR) / Septoplasty
- Nasal Polypectomy
- Drainage of the Frontal Sinus
- Tonsillectomy and Adenoidectomy (T and A)
- Laryngoscopy
- Traheostomy
- Parotidectomy
- Radial Neck Dissection

✓ **Ophthalmic Surgery**

- General Information
- Excision of a Chalazion
- Canthotomy
- Lacrimal Duct Probing
- Dacryocystothinosotomy
- Corneal Transplant /Ekeratoplasty
- Cataract Extraction
- Trabeculectomy
- Excision of a pterygium

✓ **Pediatric Procedures**

- Pediatric General Information
- Pediatric Tracheostomy
- Repair of Congenital Diaphragmatic Hernia
- Pediatric Umbilical Herniography
- Pediatric Colostomy
- Repair of Imperforate Anus

ANAESTHESIA

Anaesthesia :

(Marks 10)

- General Information
- General Anaesthesia
- Conduction
- ✓ **General Anaesthesia :**
- ✓ **Conduction Anaesthesia :**
 - Spinal
 - Epidural
 - Caudal
 - Regional
 - Local
 - Topical

- ✓ **Methods for Preparation of the Patients for Anaesthesia**
 - Methods and Procedures (during after operation)

Surgical Procedures and Monitoring:

(Marks 40)

✓ **Safety for operation room personnel**

- In Service education
- Body mechanic
- Fatigue Factors
- Radiation Safety
- Infection control
- Chemical Hazards

✓ **Preparation of Instruments Tray**

- Major procedures tray
- Basic /Minor procedures tray
- Biliary tract procedures tray
- Basic rigid sigmoidoscopy tray
- Gastrointestinal procedures tray

✓ **Gynaecologic and Obstetric Trays**

- Dilatation of the Cervix and Curettage of the Uterus (D&C) Tray
- Cervical Cone Tray
- Abdominal Hysterectomy
- Caesarian Section tray

✓ **Genitourinary Trays :**

- Vasectomy tray
- Open Prostatectomy

✓ **Neurologic Procedures Tray :**

- Craniotomy tray
- Laminectomy Tray

✓ **Otorhinolaryngologic (ENT) Trays :-**

- Basic Ear procedures tray
- Nasal procedures tray
- Myringotomy tray
- Tonsillectomy and Adenoidectomy tray
- Tracheostomy tray

✓ **Ophthalmic Trays :-**

- Basic Eye procedures tray
- Cataract Extraction and Lense procedures tray
- Basic Eye procedures Microscope tray

✓ **Pediatric Tray :-**

- Pediatric major procedures tray
- Pediatric minor Procedures tray

Total 100 Marks**1)ANOTMY AND PHYSIOLOGY****15 Marks****GENERAL:**

- a) Introduction to the Human body. Terms used in Anatomy, (Surface anatomy, markings and locations of different body parts and important body planes.
- b) Planes and Regions of Thoracic, Abdominal and pelvic Cavities.

Cardiovascular System.

Heart, pericardium, Arterial system, Venous system, Capillary, systemic circulation.

Digestive System:

Mouth , oesophagus, stomach, small intestine, large intestine, spleen, liver, Salivary Gland , Gall Bladder, pancreas, Physiology and Digestion Absorption and Assimilation of Food.

Respiratory System:

Noise , pharynx, larynx, trachea, Bronchi, lungs, pleura, physiology of Respiration-Expiration and Ins;piration, Internal and External Respiration, Breathing control, vital capacity . Tidal volume and Dead space.

Reproductive system:

- a) Male Reproductive system: Male Reproductive organs, Spermatogenesis, Testosterone and Secondary sexual characters.
- b) Female Reproductive System: Vulva, internal reproductive organs menstrual cycle, ovarian hormones & Female breast.

Excretory System:

Introduction to Excretory body organs, structure of kidneys , ureters, Urinary, Bladder, Urethra, Physiology of filtration Reabsorption and secretion.

Nervous System:

Brain Meninges , ventricles spinal cord nerves and cerebro spinal fluids.

Endocrine system -

Definition, Pituitary Gland, Pineal gland. Thymus Gland Adrenal Glands Thyroid, Parathyroid Glands.

Sense Organs-

Structure and function of Eye , Skin , Ear and Tongue.

Musculoskeletal System-

Skull, vertebral column, shoulder girdle, Thoracic cage. Bones upper limbs , Bones of lower limbs, type of bony joints and movements.

2) Transformers-

20 Marks

Principles construction of step up & down and Auto transformers, construction of high tension . Transformers rectification . Self rectification.

X-Ray

Production of x-ray, properties, interaction with matter (Photo electric compton effect and pair production) luminescent effect, photographic effect, ionizing effect & biological effects.

Units and Measurements of X-Rays-

Ionization, Roentgen, Rad Rem, R.B.E. Radiation badges, ionization chambers.

x-Ray Tube-

Construction of x-ray tube Targets, cooling and insulation , x-ray circuits, timers and rectifiers in x-ray, circuits, inter locking circuits, stationary and Rotatory anode tube.

Quantity and Quality x-ray , H.V.T or VVL linear absorption coefficient grids, cones cylinders, filters, focal spot size LBD FFD or LSD and OFD

Fluoroscopy and Image intensifier

3)Radiographic photography Techniques- 25 Marks **(Dark room Techniques)**

Dark Room-

Definition and location of dark room, ideal design of dark room , light and radiation protection devices , safe light test, ventilation, dry and wet benches, Duplicator.

Radiographic Films-

Ortho-chromatic films , panchromatic films, Base, Bonding layer, emulsion and super coating of films. Non screen films CTA base and polyster base films. The structure of Double coated & single coated film.

X-Ray Cassettes-

Construction of various cassettes, cassettes care, mounting of intensifying screen in cassettes.

Intensifying screens-

Luminescence (Phosphores cence and fluorescence) construction of screens. Type of phosphors and pigments film screen contact, speed of screens-slow parfast care of intensifying screens . Intensification factors numeral proof and rare earth screens.

- a) Mounting of intensifying screens.
- b) Screen film contact.

Film Processing-

Auto processing material for processing equipment and annual processing control on temperature chemical in Dark room the PH Scale.

- a) X-ray Developer
- b) X-Ray Fixer
- c) Film Rinsing Washing & Drying
- d) Preparation of processing chemicals, loading and unloading of cassettes,

Presentation of Radiograph-

record filling and report distribution.

Film Artifacts-

Definition, type and causes of radiation and photographic artifacts, factors affecting the quality control of radiograph.

4) Radiographic General Procedures

25 Marks

Introduction- The Radiographic image (image formation, magnification image Distortion, Image, sharpness, Image contrast) Exposure factor and Anatomical Terminology.

Skeletal System-

- Upper Limb- Procedure for thumb, fingers, meta carpals, hand carpometacarpal joints, wrist joint, carpo-radio-ulnar joint, forearm, elbow joint, arm, special views for scaphoid bone, olecranon process, supra condylar projection in various type of injured patients.
- b) Lower limb- Procedure for toes, meta tarsals, complete foot, tibiotalar, talo calcaneal joint, leg with ankle joint leg with knee joint, thigh with hip joint.
- c) Shoulder Girdle and Bony thorax- Procedures for scapula clavicle and head of humerus sternoclavicular joint, special views for clavicle. Head of humerus and scapula in various types of injured or dislocation cases.

- d) Vertebral Column- Normal curvature relative levels of vertebrae, procedures for atlanto-occipital joint, odontoid process, cervical spine , cervicodorsal spine , dorsal spine, dorso-lumbar spine, and spondylolysis.

Chest-

Procedures for chest at six feet, lying down and erect positions, inspiration and expiration views , special views like lordotic , decubitus, MMR portable teloradiography, chest in pregnancy. High Kilovololtage technique.

Abdominal Pelvis-

Preparation for procedure, procedure for upper abdomen, lower abdomen, KUB Gallbladder Stomach , small intestine and large intestine in supine and erect position, special views in case of perforation etc.

Sinus-

Procedures for paranasal sinuses, (frontal, ethmoid, sphenoid and maxillary sinuses).

Soft Tissue Radiography-

Procedures for STM , STN abdomen and other body organs.

invetogram procedures, manipulation of positions, immobilization , exposure, FFD in abnormal conditions of patients.

Hospital Practice and Care of patients-

Set up of radiology department in Hospital, Hospital staffing and organization . Patients registration , record filling , cases put up and dispatch devices, medico legal aspect of profession . Professional relationship of radiographer with patient and organization staff.

5)Special Investigation

15 Marks

Urinary Tract-

Plain Radiographs for UB Intravenous pyelograph, (IVP or IVU) Retrograde pyelography, Micturiting -cystourethrogram, Retrograde Urethrogram

Gastro-Intestinal Tract-

Plain Radiographs, abdomen, Barium Swallow, Barium UGI Barium meal ET, Barium Enema, double contrast Barium enema and instant Barium enema, Miscellaneous Procedures, Gastrografin study, fluoroscopy,

Biliary Tract-

Introduction to biliary contrast media plain radiographs upper abdomen, oral cholecystography (OCG) endoscopic Retrograde cholangiopancreatography (ERCP)

HSG

Fistulogram

Sinogram

Annexure "G"

CLINICAL STAFF FOR CASUALTY BED

Marks :-100

Time :- 2.00 Hours

Unit – 1: Body Structure & Function (25 Marks)

1. Anatomy

- Different Parts of the human body, Common Anatomical Terms, Anatomical Positions and important planes,
- Structure, function mechanism - Skeletal System, Gastro-Intestinal System, Genito- Urinary System, Respiratory System, Cardio-Vascular System, Nervous System, Loco- Motor System.

2. Physiology

- Blood- Composition and General function, Blood group, ABO and Rh, basis for classification, basis for determination, importance of Blood Groups.
- Structure, function mechanism - Cardio-vascular System, Respiratory System, Excretory System, Skin, Digestive System, Endocrine Glands, Reproductive System, Cerebrospinal fluid, Formation, composition and functions.

Unit - 2: Basic Laboratory Techniques (30 Marks)

1. Laboratory Management & Ethics

- Role of the Laboratory in the Health Care Delivery System, Types of Diseases, Process of Diagnosis, Laboratory at different levels, Duties and responsibilities of Laboratory personnel.
- Laboratory Planning, Guiding Principles for planning Hospital laboratory Services, Laboratory Organisation, Components and functions of a laboratory.

2. Cytology & Microbiology

- Description of cytology in detail, Fixation used in cytology, Dry Fixation and Wet Fixation, Stains used in Cytology, BLF Cytology, Sex Chromatin staining in Cytology.
- Microscope, Classification and Morphology of Bacteria, Staining of Bacteria, Cultivation of Micro-Organisms, Identification of Bacteria, Gram Negative Bacilli, Gram Positive Bacilli, Antibiotic Sensitivity test.

3. Histo-Pathology

- Sections of Pathology, Chemical used in Tissue Processing, Decalcification, Methods of Decalcification & Decalcification of

Bones, Procedure of Embedding tissue in Paraffin Wax, Procedure of Paraffin Wax Tissue Block, Various Instruments used in Microtomy.

- Tissue Processing in Histopathology, Automatic Tissue Processor and its uses in detail, Tissue Staining, Steps of Tissue Staining, Tissue Grossing.
- Autopsy Technique, Assisting in Autopsy, Preservation of organs & Processing of Tissues.
- Waste disposal and safety in Laboratory

4. Blood Banking

- Types of Blood Banking, Process of Coagulation, Rh – Factor, Erythroblastosis Foetalis, MN – Group System.
- Human Blood Group Antigens, their inheritance and antibodies
- ABO Blood Group System , Rh Blood Group System
- Techniques of Grouping and Cross Matching
- Blood Collection, Blood Transfusion, Coomb's Test
- Blood Donor/Receptor, Procedure of Blood Collection from a donor
- Precautions to be taken before Blood Collection, Storage of Blood, Anticoagulants used in Blood banks

5. Clinical Pathology

- Collection of Blood, Composition of Blood, Types of Anti – Coagulant Tubes and their Uses, RBC's and various process of counting, Erythropoiesis, Haemocytometer and its uses, Types of WBC's and process of counting, PBF (Peripheral Blood Film) its preparation, Staining.
- Various Types of Romanowsky Stains and Uses, Leishman's Stains, Platelet Count. Process of counting manually, Absolute Eosinophil count & its estimation, ESR and various methods of estimation, PCV and its procedure for conducting.
- Microscope, Parts and Functions in Laboratory, Haemoglobin in detail, Centrifuge and its uses, Haemocritometer Set.

6. Blood & Urine Examination

- Urine, composition of Urine in detail, Urine Examination under Microscope, Various methods of sampling Urine for conducting various examinations like Albumin, Sugar, Acetone, Bile pigmentation, Bile Salt, Urobilinogen, Occult Blood, KFT etc, Physical Examination – Colour, Reaction, Odour, Specific gravity Urinary Volume.
- Composition of Blood ,Blood and cerebrospinal Fluid functions of Blood & CSF, Complete blood count, Blood sugar test, Various methods of sampling blood for conducting various examinations.

Unit – 3: Basics of Patient Care & Health Assistance (10 Marks)

1. Public Health & Hygiene

- Concept of public health, Various Health Committees, Health and Family Planning Organisations setup at the National, the State, the District and Block, Levels.

2. Home Nursing & Health Education

- Introduction to Nurse, Sick Room, Bed Making, Patient's Toilet, Diet, Medicines, Special Conditions & Treatments.
- Care of the Aged and Long-term Patient, Care of the Mentally ill Healthy Patient, Nursing in Special Diseases.
- Immunity & Infectious Diseases, Special Drugs-their Control & Administration, Shock and Blood Transfusion, The Hospital Services, Childbirth and its Management.
- Principles, ethics, attributes of health educator, essential steps and introduction to the main methods in health education. History development and growth of health education in India, Various methods of Health Education.

3. Community Pharmacy and Management

- Community Pharmacy Practice, Prescription and prescription handling, Patient counselling, Communication skills, Medication Adherence, Health Screening Services, Over the Counter (OTC) medications, Responding to symptoms/minor ailments, Community Pharmacy Management.

Unit – 4: Clinical Duties (20 Marks)

1. Sterilization & Disinfection

- Physical, Chemical and Mechanical Methods, Disposal of Contaminated Media, sterilization of syringes, glass wares, apparatus.

2. Examination and Surgical Procedures

- Procedures - urinalysis, strep tests, blood pressure checks, weight checks, electrocardiograms, venipuncture and injections. Pap smear, mammography, ECG, placing IV's, educating patient about procedure

3. First Aid

- Introduction and history of the Red-Cross, Dressing and Bandages, Cardio-pulmonary resuscitation, Different methods

of artificial respiration, Transport of injured persons.

- Procedures during common conditions - Fractures and Dislocation, Epilepsy and Hysteria, Poisons including food, Cramps, Frost – Bite, Bites and Stings, Snake Bite, Dog Bite, Unconsciousness and Fainting.

4. Pharmacotherapeutics

- Drug therapy of various diseases, Medication counselling points, etiopathogenesis, disease management.
- Pharmacological management of the diseases associated with Cardiovascular System, Respiratory System, Endocrine System, CNS, GI Disorders, Hematological disorders, Infectious diseases, Musculoskeletal disorders, Dermatology, Disorders related to Women's Health.

Unit – 5: Technical Duties / Administrative Duties (15 Marks)

1. Surgical Instruments

- Surgical Instruments – name & uses, Instruments for general surgery, Ophthalmic Surgery, Operations on the chest, Gynecological and Obstetric Operations, Orthopaedic Operations, Neuro-Surgical Operations, on the Vascular System, Trauma Surgery.

2. Preparation of Instrument Trays

- Major procedures tray, Basic / Minor procedures tray, Thyroid tray, Long instruments tray, Genitourinary trays, Thoracic trays, Cardiovascular trays, Orthopaedic trays, neurologic procedure trays, ENT trays, Ophthalmic trays, Pediatric trays,

3. Protection of patient in surgery

- Preparation of patient for operation, Pre and Post-operative patient care, Psychological support of the surgical patient.
- Admission Procedure, Transfer Procedure, Environmental Controls, Electro surgery, Operative Records, Counting Procedure, Emergencies and Disasters.

4. Safety measures in Operation theatre

- Body mechanic, Fatigue factors, Safety measures – Radiation safety, Infection control, Chemical hazards, Chemotherapy
- Waste disposal and safety in operation theatre.

5. Record Keeping

- Introduction to store records, Clerical procedure, Inward section Records and procedures in main stores, classification and codifications, keeping of stocks books, preparation of indent and methods of storing drugs.
- Different types of health care information system, Electronic medical records, Electronic health records, filling patients' medical records, filling insurance form, arranging for hospital admission/ laboratory services, scheduling appointments, bill handling.