



SEMESTER – I

PAPER CODE	SUBJECT NAME	THEORY HOURS	PRACTICAL HOURS	THEORY MARKS	PRACTICAL MARKS
NA101	ANATOMY & PHYSIOLOGY	45 Min	1 Hrs.	50	50
NA102	FUNDAMENTAL OF NURSING	45 Min	1 Hrs.	50	50
NA103	FIRST AID & NUTRITIONAL NURSING	45 Min	1 Hrs.	50	50
NA104	COMMUNICABLE DISEASE	45 Min	1 Hrs.	50	50

ANATOMY & PHYSIOLOGY

THEORY

1: Introduction to Human Body

- Definition and importance of anatomy & physiology in nursing
- Organization of the human body: cell, tissue, organ, system
- Anatomical terms and body planes

2: Skeletal System

- Functions of the skeleton
- Types of bones
- Major bones of the body
- Joints and their types
- Common disorders (fractures, arthritis)

3: Muscular System

- Types of muscles: skeletal, smooth, cardiac
- Functions of muscles
- Important muscle groups (e.g., biceps, diaphragm)
- Common disorders (sprain, muscular dystrophy)

4: Circulatory System



- Structure and function of the heart
- Blood vessels: arteries, veins, capillaries
- Composition and functions of blood
- Blood groups and coagulation
- Pulse and blood pressure

5: Respiratory System

- Organs: nose, pharynx, larynx, trachea, bronchi, lungs
- Process of respiration (inhalation & exhalation)
- Gas exchange in lungs
- Common disorders: asthma, pneumonia, TB

6: Digestive System

- Organs: mouth, esophagus, stomach, intestines, liver, pancreas
- Digestion process
- Absorption and elimination
- Common disorders: diarrhea, constipation, ulcers

7: Nervous System

- Structure and function of brain, spinal cord, nerves
- Divisions: CNS & PNS
- Reflex action
- Sensory and motor nerves
- Common disorders: epilepsy, paralysis

8: Excretory System

- Organs: kidneys, ureters, bladder, urethra
- Urine formation
- Importance of fluid balance
- Common disorders: UTI, kidney stones

9: Reproductive System

- Male and female reproductive organs
- Menstrual cycle
- Fertilization and conception (basic)
- Puberty and secondary sexual characteristics

10: Endocrine System

- Major glands: pituitary, thyroid, pancreas, adrenal



- Hormones and their functions
- Common disorders: diabetes, hypothyroidism

11: Integumentary System (Skin)

- Layers of skin
- Functions of the skin
- Hair and nails
- Skin care and hygiene

12: Sense Organs

- Structure and function of:
 - Eye
 - Ear
 - Nose
 - Tongue
 - Skin receptors

PRACTICAL

➤ Identification & Demonstration

- Identification of **human body parts** using models or charts
- Demonstration of **anatomical positions and body planes**
- Identification of **major bones** (e.g., skull, femur, humerus, vertebrae)
- Identification of **major muscles** (e.g., biceps, diaphragm, calf muscles)
- Identification of **internal organs** using charts/models
- Identification of **sense organs** and their parts

➤ Observation & Measurement

- Measurement of **pulse rate**
- Measurement of **respiratory rate**
- Measurement of **blood pressure** using a sphygmomanometer
- Observation and recording of **temperature** using clinical thermometer
- Calculation of **body mass index (BMI)**

➤ Specimen & Chart Work

- Observation and labeling of specimen: **heart, lungs, kidney, brain, stomach, liver**
- Preparation and explanation of **charts** on major body systems



- Drawing and labeling of **basic body systems** (e.g., digestive, respiratory, nervous)

➤ **First Aid & Application-Based Practicals**

- Demonstration of **reflex action** (e.g., knee-jerk)
- Practice of **basic hygiene techniques** (e.g., handwashing)
- Practice of **first aid measures** for cuts, burns, fainting
- Demonstration of **safe lifting and patient positioning**

➤ **Record Book & Reporting**

- Maintenance of **practical record file**
- Preparation of **case studies or observation reports**
- Filling health assessment forms (pulse, BP, respiration)

➤ **Optional/Extended Activities**

- Visit to an **anatomy museum or lab**
- Audio-visual sessions on **organ system functions**
- Group discussion on **nursing relevance of physiology knowledge**

FUNDAMENTAL OF NURSING

THEORY

1: Introduction to Nursing

- Definition, concept, and principles of nursing
- Scope of nursing practice
- Role and responsibilities of Nursing Assistant in hospital and community
- Ethical principles and code of conduct
- Qualities of a nurse
- Importance of communication in nursing

2: Health Care Delivery System in India

- Levels of health care: Primary, Secondary, Tertiary
- Health care team: roles and functions
- Sub-centers, PHC, CHC structure and responsibilities
- Referral system
- Introduction to National Health Programs



3: Basic Nursing Care Procedures

- Admission and discharge procedure
- Bed making techniques: open, closed, occupied, cardiac, surgical, fracture bed
- Measuring vital signs: temperature, pulse, respiration, blood pressure
- Observation of physical signs
- Maintenance of intake and output chart
- Recording weight and height

4: Personal Hygiene and Patient Comfort

- Importance of hygiene
- Providing bed bath, oral hygiene, care of eyes, ears, nose, nails, hair
- Changing garments and linens
- Pressure sore prevention: back care, positioning
- Assisting with toileting needs: use of bedpan, urinal, commode

5: Nutrition and Feeding

- Feeding techniques for helpless patients
- Feeding through nasogastric tube (observation)
- Types of diets: liquid, soft, normal
- Preparation of ORS and assisting with feeding

6: Elimination Needs

- Providing and removing bedpans and urinals
- Care of colostomy and urinary catheter (observation)
- Bowel and bladder training

7: Infection Control & Aseptic Techniques

- Concept of infection, source and transmission
- Principles of asepsis
- Hand washing techniques (medical and surgical)
- Use of gloves, masks, gowns
- Methods of sterilization and disinfection
- Biomedical waste segregation and disposal

8: First Aid and Emergency Care

- First aid in minor cuts, burns, fainting, poisoning, drowning, bleeding
- CPR – basic principles (theoretical and demonstration)
- Emergency tray – contents and use



- Transporting and shifting patients safely

9: Administration of Medications

- Rules and principles of drug administration
- Routes: oral, topical, inhalation, suppository, injection (observation only)
- Observation of drug effects and side effects
- Storage of medicines
- Use of common drugs in community practice (e.g. paracetamol, ORS, IFA tablets)

10: Observation, Reporting, and Record Keeping

- Importance of observation and accurate recording
- Common records: admission register, intake/output chart, TPR chart
- Daily report writing and patient notes
- Reporting abnormalities to supervisor or doctor

PRACTICAL

➤ Basic Nursing Skills

- Handwashing technique (7 steps of WHO)
- Use of PPE (gloves, mask, apron)
- Handling thermometer (oral, axillary, rectal)
- Recording:
 - Temperature
 - Pulse
 - Respiration
 - Blood pressure

➤ Bed Making Procedures

- Simple/Closed bed
- Open bed
- Occupied bed
- Fracture bed
- Cardiac bed
- Surgical bed

➤ Personal Hygiene Care

- Giving complete bed bath



- Oral hygiene for conscious and unconscious patients
- Hair washing and combing
- Nail care
- Eye, ear, and nose care
- Perineal care

➤ **Patient Comfort and Positioning**

- Use of comfort devices (pillows, backrest, bed cradle)
- Positioning a patient:
 - Fowler's
 - Supine
 - Prone
 - Lateral
 - Sim's
 - Lithotomy

➤ **Feeding the Patient**

- Feeding helpless/conscious patients
- Assisted feeding using spoon/cup
- Observation of nasogastric tube feeding (if available)
- Preparation of ORS solution
- Recording intake and output

➤ **Elimination Needs**

- Assisting with bedpan and urinal
- Use of commode chair
- Enema administration (observation)
- Care of colostomy (observation)
- Care of urinary catheter (observation)

➤ **Prevention of Bed Sores**

- Back massage
- Repositioning
- Use of air/foam mattresses
- Pressure point inspection

➤ **First Aid and Emergency Skills**

- Application of bandages (arm, leg, head)
- Dressing minor wounds



- First aid for:
 - Burns
 - Bleeding
 - Fainting
 - Fractures
 - Snakebite
- CPR (demonstration on mannequin)
- Transporting a patient using stretcher/wheelchair

➤ **Medication and Asepsis**

- Preparing and administering oral medicines
- Identification of common drugs (Paracetamol, ORS, IFA, etc.)
- Cleaning and disinfecting articles (bedpans, trays)
- Sterilization of linen and dressing material (demonstration)
- Use of antiseptics and disinfectants
- Handling and disposal of sharps and biomedical waste

➤ **Observation and Reporting**

- Maintenance of:
 - TPR chart
 - Blood pressure record
 - Intake-output chart
 - Weight chart
- Incident reporting format
- Filling nursing care records and daily progress notes

FIRST AID & NUTRITIONAL NURSING

THEORY

PART A : FIRST AID

1. Introduction to First Aid

- Definition, aims, and principles of first aid
- Role and responsibilities of an nursing assistant in emergencies
- Content of a first aid box



2. First Aid for Common Injuries and Conditions

- Cuts, wounds, and bleeding
- Burns and scalds
- Fractures and dislocations
- Shock and unconsciousness
- Fainting and choking
- Bites and stings (snake, insect, dog bite)
- Nosebleeds and eye injuries
- Foreign bodies (nose, ear, eye)

3. First Aid in Major Emergencies

- Drowning
- Electric shock
- Heat stroke/sunstroke
- Poisoning
- Fire accidents
- Seizures (epilepsy)

4. Bandaging Techniques

- Roller bandage application
- Triangular bandage techniques
- Bandaging limbs, head, and joints

5. Transportation of Injured Patients

- Lifting techniques
- Use of stretcher, wheelchair, and spine board
- Positioning of unconscious or injured patients

6. CPR and Resuscitation (Basic Life Support)

- ABC of resuscitation
- CPR steps (theory and mannequin demo)
- Emergency tray and its contents

PART B: NUTRITIONAL NURSING

1. Introduction to Nutrition

- Definition and importance of nutrition in health and disease
- Classification of food: energy-giving, body-building, protective



2. Essential Nutrients

- Carbohydrates
- Proteins
- Fats
- Vitamins
- Minerals
- Water and fiber
- Functions, sources, daily requirements, and deficiency diseases

3. Balanced Diet

- Concept and components
- Factors affecting nutrition (age, sex, activity, income, culture)
- Meal planning for different age groups

4. Nutritional Needs in Special Conditions

- Infants and children
- Pregnant and lactating mothers
- Elderly individuals
- Patients (with diabetes, hypertension, etc.)

5. Malnutrition and Deficiency Disorders

- PEM (Protein Energy Malnutrition): Kwashiorkor, Marasmus
- Anemia
- Vitamin and mineral deficiencies (rickets, scurvy, night blindness)

6. Food Hygiene and Preservation

- Food contamination and spoilage
- Safe food handling and preparation
- Storage and preservation methods
- Importance of personal hygiene in food service

PRACTICAL

PART A: FIRST AID

➤ Preparation & Observation

- Identify and **prepare a first aid kit**
- List and explain the use of **first aid articles**
- Identify **signs and symptoms** of emergencies (shock, bleeding, burns, fractures)



➤ Bandaging and Dressing

- Demonstrate the application of:
 - Roller bandages (limb injuries)
 - Triangular bandages (head, chest, arm slings)
 - Eye and scalp bandages
 - Pressure bandage for bleeding control
- Demonstrate **dressing of minor cuts, wounds, and burns**

➤ Emergency Procedures

- Demonstrate **control of bleeding** using elevation, pressure, and bandage
- First aid in case of:
 - Burns and scalds
 - Nosebleed
 - Fractures and dislocations
 - Poisoning (general care)
 - Electric shock
 - Snakebite and dog bite
 - Fainting and unconsciousness

➤ Life Support & Transport

- Demonstrate:
 - **CPR (Cardiopulmonary Resuscitation)** using a mannequin
 - **Recovery position** for unconscious patient
 - **Artificial respiration (mouth-to-mouth)** – demonstration
- Safe **transport of patients** using:
 - Stretcher
 - Wheelchair
 - Arm lift method
 - Blanket carry

PART B: NUTRITIONAL NURSING

➤ Identification and Classification

- Identify **common food items**: body-building, energy-giving, protective
- Classify food according to nutrients (carbohydrate, protein, fat, vitamins, minerals)
- Identify signs of **common nutritional deficiencies**

➤ Measurement & Calculation

- Use of standard measuring tools: glass, cup, ladle, spoon



- Demonstrate calculation of:
 - **Balanced diet for different age groups**
 - **Calorie requirements** using food charts
- **Meal Planning and Preparation**
- Prepare and demonstrate:
 - **Simple balanced diet** for infants, pregnant women, lactating mothers, and elderly
 - **Weaning food for infants**
 - **ORS (Oral Rehydration Solution)** preparation
 - **Iron and protein-rich recipes** for anemic or undernourished patients
- **Nutrition Education**
- Prepare **nutrition education charts/posters**
- Demonstrate **nutrition talk or session** for mothers or school children
- Visit and observe **community nutrition programs** (e.g., ICDS, Mid-Day Meal)

COMMUNICABLE DISEASE

THEORY

1: Introduction to Communicable Diseases

- Definition and classification
- Mode of transmission: direct & indirect
- Chain of infection
- Sources and carriers of infection
- Prevention and control: general measures
- Immunity – natural and acquired
- Role of nursing assistant in control of communicable diseases

2: Bacterial Diseases

- **Tuberculosis (TB)**
 - Cause, transmission, signs & symptoms
 - DOTS program
 - nursing assistant's role in detection, treatment adherence, and education
- **Typhoid**
- **Cholera**
- **Diphtheria**



- **Whooping Cough (Pertussis)**
- **Tetanus**
- **Leprosy**
 - Types, symptoms, stigma, and role in treatment and counseling

3: Viral Diseases

- **Measles**
- **Mumps**
- **Chickenpox**
- **Hepatitis A & B**
- **Polio**
- **Rabies**
- **COVID-19 (if included by institution)**

4: Vector-Borne Diseases

- **Malaria**
 - Cause, symptoms, mosquito control methods
- **Dengue**
- **Chikungunya**
- **Kala-azar (Visceral leishmaniasis)**
- **Filariasis**

5: Intestinal Parasitic & Zoonotic Diseases

- **Amoebiasis**
- **Giardiasis**
- **Worm infestations (roundworm, hookworm)**
- **Zoonotic diseases: Rabies, Brucellosis**

6: Sexually Transmitted Infections (STIs)

- **HIV/AIDS**
 - Modes of transmission
 - Prevention strategies
 - Stigma and community education
- **Syphilis and Gonorrhea (overview)**

7: Prevention & Control Measures

- Isolation and barrier nursing
- Disinfection and sterilization
- Notification of diseases



- Surveillance
- Mass drug administration
- Environmental sanitation
- Health education and awareness
- Cold chain maintenance and immunization

8: National Health Programs Related to Communicable Diseases

- Revised National TB Control Program (RNTCP)
- National Leprosy Eradication Program (NLEP)
- National Vector Borne Disease Control Program (NVBDCP)
- Universal Immunization Program (UIP)
- Integrated Disease Surveillance Program (IDSP)

PRACTICAL

A. FIELD-BASED (COMMUNITY) ACTIVITIES

➤ Home Visits & Observation

- Conduct home visits for suspected or confirmed TB, leprosy, malaria, etc.
- Observe signs and symptoms of communicable diseases
- Educate family members on infection prevention and hygiene
- Observe the home environment for risk factors (e.g., stagnant water, poor sanitation)

➤ Health Education Sessions

- Educate on:
 - Importance of handwashing and hygiene
 - Use of mosquito nets and repellents
 - Safe drinking water practices
 - Proper food handling and sanitation
 - Vaccination awareness
- Use of posters, charts, and demonstrations

➤ Mosquito Control Activities

- Identify mosquito breeding sites
- Demonstrate elimination of stagnant water
- Promote use of insecticides and mosquito nets
- Conduct surveys for malaria/dengue symptoms

➤ Contact Tracing and Surveillance



- Prepare contact lists of TB, leprosy, measles patients
- Visit and screen household members
- Educate contacts about disease and follow-up
- Fill surveillance and contact tracing registers

➤ **Mass Education Campaign Participation**

- Assist in pulse polio campaigns
- Support outreach immunization programs
- Mobilize community members for health camps

B. INSTITUTIONAL (CLINICAL) PRACTICE

➤ **Disease-Specific Care**

- Assist in isolation and care of patients with TB, typhoid, scabies, etc.
- Observe and report signs of communicable diseases
- Participate in dressing, wound care, and basic procedures
- Practice barrier nursing methods

➤ **Disinfection and Waste Disposal**

- Demonstrate disinfection of patient equipment and surroundings
- Prepare disinfectant solutions (phenyl, bleaching powder)
- Safe handling and segregation of biomedical waste
- Disinfection after patient discharge or death

➤ **Immunization Support**

- Assist in vaccine storage and cold chain maintenance
- Observe and record immunization schedules
- Support nursing assistant workers and nurses during vaccination sessions
- Monitor for adverse reactions (under supervision)

➤ **Recording and Reporting**

- Maintain:
 - Communicable disease register
 - Contact tracing forms
 - Disease notification reports
 - Immunization register
- Report suspected outbreaks to supervisor/medical officer