



## CERTIFICATE IN NURSING ASSISTANT

**DURATION :1 YEAR**

**ELIGIBILITY : 10<sup>TH</sup> PASS**

CNA			
S.NO	PAPER CODE	NAME OF PAPERS	CREDIT
1 <sup>ST</sup> YEAR			
1	101	HUMAN ANATOMY	4
2	102	HUMAN PHYSIOLOGY	4
3	103	FUNDAMENTALS OF NURSING	4
4	104	ENGLISH COMMUNICATION & SOFT SKILLS	3
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### 101 HUMAN ANATOMY

#### Unit -1

Terminology and General Plan of the Body, Body Parts and Areas, Terms of Location and Position, Body Cavities and Their Membranes, Dorsal cavity, Ventral cavity, Planes and Sections

#### Unit -II

Cells: Structure, function and location, Prokaryotic and eukaryotic cells, Cell organelles, Cell division Tissue, Types, Structure, Location and Function of Epithelial Tissue, Connective Tissue, Muscle Tissue, Nerve Tissue, Membranes, Glandular tissue

The Integumentary System: structure and function of The Skin, Subcutaneous Tissue

#### Unit-III

Musculoskeletal System: Basic anatomy of important muscles and bones

#### Unit-IV

Respiratory system: Basic anatomy of nose, larynx, trachea, bronchi and lungs

#### Unit - V

Digestive system: basic anatomy of oesophagus, stomach, small intestine, large intestine, liver, gall bladder, pancreas

### 102 HUMAN PHYSIOLOGY

### **Unit-I**

Cell physiology: Structure, membrane, transport across cell membrane, Active, Passive, Organization of the Body, Body Composition, Body Fluid Volumes and its measurement, Diffusion, Osmosis, Tonicity, Homeostasis

### **Unit-II**

Blood-composition, function, cellular component & their function, haemoglobin & anaemia, blood groups and coagulation

Lymphatic system-Composition & function of lymph, lymphatic tissue, Immunity with the role of thymus

### **Unit-III**

Cardiovascular system-general arrange, heart, arteries, veins and capillaries, heart structure and function, cardiac cycle, heart sounds, heart rate, blood pressure, mechanism of circulation, definition of hypertension & shock

### **Unit-IV**

Respiratory system: parts of respiratory system, mechanism of respiration, pulmonary function, pulmonary circulation, lungs volume, Gas transport between lungs and tissues, Definition of hypoxia, dyspnoea, cyanosis, asphyxia and obstructive airways diseases

### **Unit- V**

Gastrointestinal physiology: Organs of GIT and their structure & function, secretion, digestion, absorption and assimilation, gastrointestinal hormones, physiology of digestion of carbohydrates, proteins & lipids, Structure & function of liver, spleen, gall bladder & pancreas, Jaundice, Cirrhosis & Pancreatitis

## **103 FUNDAMENTALS OF NURSING**

### **Unit- I**

#### **Introduction to Nursing**

Nursing – concept, meaning, definitions, scope and functions, History of nursing in India, Nursing as a profession

Nursing professional – qualities and preparation) Ethics in Nursing-roles and responsibilities of a nurse.

Health care agencies – hospital and community service – types and function of hospitals health team, Modern approaches to nursing care including holistic nursing care, Health and Disease- Definition of health, determinants

of health status.- Basic human needs- Illness and its effects on individual

### **Unit-II**

#### **Nursing care of the patient**

Patient Environment in the hospital: Patients unit, Therapeutic environment- Physical factors – lighting temperature, ventilation, humidity, noise, pestilence,- Safety needs, prevention of environmental hazard - Psychosocial and aesthetic factors. Patient's Adjustment to the Hospital. Understanding the patient as a person, socio-economic, and cultural background, health status etc. Effect of hospitalization on patient and family. Admission, transfer, discharge procedures. Basic Nursing Skills-Communication, Nursing interview Recording and reporting. Nursing Process- Meaning and importance Assessment, Nursing diagnosis Planning, Implementation and Evaluation Nursing care plan.

### **Unit-III**

#### **Meeting the Basic Needs of a patient**

Physical needs- Comfort, rest, sleep and exercise, Importance and its promotion, Body mechanics –moving, lifting, transferring Position and posture maintenance, Comfort devices, Beds and bed making – Principles of bed making, types and care of bed linen, Safety devices, restraints and splints, Exercises – Active and Passive Hygienic needs, Personal and environmental hygiene personal, Nurses note in maintaining personal and environmental hygiene. Care of eyes, nose, ears, hands and feet. Care of mouth, skin, hair and genitalia

Care of pressure areas, bed sores. Elimination needs- Health and sickness Problems – constipation and diarrhea, retention and incontinence of urine. Nurse's role in meeting elimination needs. Offering bed-pan and urinal, Observing and recording abnormalities. Preparation and giving of laxative, suppositories, enemas, bowel wash, flatus tube. Perineal care, care of patient with urinary catheter, diapers. Maintenance of intake and output records

Nutritional needs- Diet in health and disease- Factors affecting nutrition in illness,- Nurse's role in meeting patients nutritional needs.- Modification of diet in illness.- Diet planning and serving.- Feeding helpless patients including artificial methods of feeding. Psychological and spiritual needs- Importance- Nurse's role - Diversional and Recreational therapy, Care of terminally ill and dying patient- Dying patient's signs and symptoms needs of dying patient and family, Nursing care of dying-: special considerations; advance directives, euthanasia, will, dying declaration, organ donation etc. Medico legal issues, Care of the dead body, Care of unit- Autopsy- Embalming

#### **Unit-IV**

##### **Assessment of patient/client**

Physical Assessment- Importance, principles, methods of assessment- Height, Weight, posture- Head to toe examination. Physiological Assessment- Vital signs, normal, abnormal Characteristics, factors influencing the variations,- Observation and collection of specimens-urine, stool, vomitus and sputum. Psychological Assessment

- Mood, Intelligence, Emotions Normal and Abnormal behavior.

#### **Unit-V**

##### **Infection control**

Infection control :- Nature of infection- Chain of infection transmission- Defence against infection: natural and acquired- Hospital acquired infection( nosocomial infection) Concept of asepsis: Medical and surgical asepsis - Isolation precautions , barrier nursing- Hand washing : simple, hand asepsis, surgical asepsis (scrub) - Isolation – source and protection- Personal protective equipments types, uses and techniques of wearing and removing- Decontamination of unit and equipment- Transportation of infected patient-. Standard safety precaution

- Transmission based precautions, Bio-medical waste management- Importance- Types of hospital wastes

- Hazards associated with hospital waste- Decontamination of hospital waste- Segregation and transportation - Disposal

## **104 ENGLISH COMMUNICATION & SOFT SKILLS**

### **UNIT-I: Introduction to English language**

a) Role and significance of English language in the present scenario

b) English Language: Its relevance for the Indian industry

c) Introduction to Listening, Speaking, Reading, Writing (LSRW) and benchmarking of the class

[Note: As part of classroom activity, a guest lecture from an industry representative/Director (CRC) and maintaining progress card for each student on LSRW for future reference]

### **UNIT-II: Phonetics & Functional Grammar**

a) Pronunciation and daily usage correction (speak with differences between p/b, s/sh, f/ph, t/d, v/w sounds)

b) Parts of speech, articles, tenses, verbs and modals

c) Practice of daily use words, numerals and tongue twisters

d) Vocabulary building, Construction of simple sentences: Basic sentence pattern, subject and Predicate

[Note: As part of classroom activity, language games, tongue & jaw exercises, simple passages from the newspapers for oral drills in the classroom and practice tests (written and oral)]

### **UNIT-III: English Communication- About Myself**

a) Let's talk, making conversation, meeting and greeting

b) Introducing myself, my family and my friends

- c) My opinions, my likes and dislikes
- d) Life at college, hostel and workplace

[Note: As part of classroom activity, use the Workbook for reference for classroom and home assignments, carry out practice tests (written and oral)]

#### **UNIT-IV: Personality Development**

- a) First impression: Dressing sense, good manners, speaking well and respectably
- b) Positive Attitude: Being happy and alert, a good listener and a good friend
- c) Consultation among peers: Soliciting advice and giving advice
- d) Goal setting, confidence building& handling rejection

[Note: As part of classroom activity, refer Workbook for classroom and home assignments, carry out practice tests (written and oral)]

### **105 FIRST AID AND EMERGENCY IN NURSING**

#### **Unit-I**

##### **Introduction**

Definition, Aims and Importance of first aid, Rules/ General principles of First Aid, Concept of emergency

#### **Unit II**

##### **Procedures and Techniques in First Aid**

Preparation of First Aid kit. Dressing, bandaging and splinting(spiral, reverse spiral, figure of 8 spica, shoulder, hip, ankle, thumb, finger, stump, single and double eye, single and double ear, breast, jaw, capelin), triangle bandage uses, abdominal binder and bandage, breast binder, T and many tail bandage, knots reef, clove. Transportation of the injured, CPR : Mouth to mouth, Sylvester,Schafer, External cardiac massage,

#### **Unit-III**

##### **First Aid in emergencies**

Asphyxia, drowning, shock, Wounds and Bleeding, Injuries to the Bones, Joints and Muscle - fractures, sprains, strains, hanging, falls, Burns and scalds, Poisoning – ingestion, inhalation,bites and stings  
Foreign body in eye, ear, nose and throat.

#### **Unit-IV**

##### **Community Emergencies & Community Resources**

Fire, explosion, floods, earth-quakes,famines etc, Role of nurses in disaster management, Rehabilitation  
Community Resources- Police, Ambulance services- Voluntary agencies-local, state national and international

### **106 COMPUTER FUNDAMENTALS**

#### **Unit-I**

Introduction to computer: Introduction, characteristics of computer, block diagram of computer, generations of computer, computer languages. Input output devices: Input devices(keyboard, point and draw devices, data scanning devices, digitizer, electronic card reader, voice recognition devices, vision-input devices), output devices(monitors, pointers, plotters, screen image projector, voice response systems).

Processor and memory: The Central Processing Unit (CPU), main memory. Storage Devices: Sequential and direct access devices, magnetic tape, magnetic disk, optical disk, mass storage devices.

#### **Unit-II**

Introduction of windows: History, features, desktop, taskbar, icons on the desktop, operation with folder, creating shortcuts, operation with windows (opening, closing, moving, resizing, minimizing and maximizing, etc.).

#### **Unit-III**

Introduction to MS-Word: introduction, components of a word window, creating, opening and inserting files, editing a document file, page setting and formatting the text, saving the document, spell checking, printing the document file, creating and editing of table, mail merge.

Introduction to Excel: introduction, about worksheet, entering information, saving workbooks and

formatting, printing the worksheet, creating graphs.

Introduction to power-point: introduction, creating and manipulating presentation, views, formatting and enhancing text, slide with graphs.

#### **Unit-IV**

Introduction of Operating System: introduction, operating system concepts, types of operating system, Computer networks: introduction, types of network (LAN, MAN, WAN, Internet, Intranet), network topologies (star, ring, bus, mesh, tree, hybrid), components of network.

Electronic Payment Systems: Introduction, Types of Electronic Payment Systems, Digital Token-Based, Electronic Payment Systems, Smart Card and Electronic Payment Systems, Credit Card- Based Electronic Payment Systems, Risk and Electronic Payment Systems.

#### **Unit-V**

Internet and its Applications: definition, brief history, basic services (E-Mail, File Transfer Protocol, telnet, the World Wide Web (WWW)), www browsers, use of the internet.

### **107 PRACTICAL-I**

#### **Practical Human Anatomy**

1. Demonstration of Major organs through models and permanent slides.
2. Demonstration of parts of circulatory system from models.
3. Demonstration of parts of respiratory system from models.
4. Demonstration of digestive system from models.
5. Demonstration of excretory system from models.
6. Demonstration of nervous system from models.
7. Structure of eye and ear
8. Demonstration of structural differences between skeletal, smooth and cardiac muscles.
9. Demonstration of various bones
10. Demonstration of various joints
11. Demonstration of various parts of male & female reproductive system from models

#### **Practical Human Physiology**

1. To measure pulse rate
2. To measure blood pressure
3. Demonstration of ECG
4. To perform Hemoglobin by Sahli's Method
5. To perform Hemoglobin by CMG method.
6. Haemoglobin by CMG method.
7. To perform Total RBC count.
8. To perform total leucocyte count.
9. To perform differential leucocyte count.
10. To perform PCV
11. To calculate Red cell indices.

#### **Practical: Basics of Computer**

Computer fundamental and internet lab

1. Using basic DOS commands.
2. Using external DOS commands
3. Creating a email account
4. Using web browser for searching and surfing.
5. Creating and formatting a document in MS office
6. Using autocorrect, auto text and spell check operation in MS office .
7. Create tables in MS Word.
8. Inserting different kinds of object in MS word.
9. Use main merge options in MS office.
10. Create a Excel work sheet with following options rows and columns alignment..
11. Using excel formulas.

12. Create a graph with available data in MS excel.
13. Create a PPT presentation using auto content wizard.
14. Use Clip art animation effects and word art galleries in presentations.
15. Using transition and setting timings for slide show.
16. Use MS access to create data base and tables.

**108 Hospital Posting:**

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