

INSTITUTE OF PARA MEDICAL TECHNOLOGY

ASSIGNMENT



R

FINAL EXAMINATION

DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY

PAPER I (ANATOMY & PHYSIOLOGY)

- Q1. Shorts notes on [any Six]:-
- | | | |
|---------------------|--------------|----------|
| a] Vertebral Column | b] Nose | |
| c] Liver | d] Testes | |
| e] Menstrual Cycle | f] Platelets | g] Lungs |
- Q2. Explain [any Two] :-
- Chambers of Heart
 - Anatomy & Physiology of Stomach
 - Secretions of Pituitary Gland
- Q3. Attempt any one detail with appropriate diagram
- What is Nephron? Describe anatomy & Physiology of organs involved in formation and excretion of urine.
 - What is enzyme? Describe anatomy & Physiology of duodenum, jejunum and Illium in detail.

PAPER II (MICROBIOLOGY)

- Q1. Shorts notes on [any Six] :-
- | | |
|--|--------------------|
| a] Humoral Immunity by T-lymphocyte | b] VDRL Slide test |
| c] Clinical symptoms of filariasis | d] Incubator |
| e] Draw diagram of Beef Tapeworm (Worm, Proglottid segment, Ova) | |
| f] H ₂ S production test | g] Coagulase Test |
- Q2. Explain [any Two] :-
- ABST in detail.
 - Different types of Antibody
 - RBC cycle of Plasmodium Falciparum
- Q3. Attempt any one in detail with appropriate diagram
- Write in detail about ELISA Test.
 - Write in detail about life cycle of hookworm and clinical significance and its laboratory diagnosis.

PAPER III (BIOCHEMISTRY)

- Q3. Short notes on [any Six] :-
- | | |
|---|-----------------|
| a) Buffer solution | b) Acidimetry |
| c) CSF (chemical examination) | d) Alkaptonuria |
| e) Electrolytes | f) Proteinuria |
| g) graphical representation of Beers & Lamberts law | |
- Q4. Explain [any Two] :-
- What is carbohydrate? Define Glycolysis.
 - What is enzyme? Define features of enzymes.
 - Components, principle and procedures of photometer.
- Q5. Attempt any one in detail
- Write in detail on estimation of serum protein and give A/G ratio with clinical significance.
 - Define TCA cycle? Write energetics of carbohydrate metabolism.

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DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY

PAPER IV (HAEMATOLOGY)

- Q1. Shorts notes on [any Five]:-
- a] L.E. cells
 - b] PCV estimation
 - c] Thick and thin peripheral blood smear
 - d] Sickle cell anaemia
 - e] WBC count
 - f] Platelet count
- Q2. Explain [any Two] :-
- a] Iron deficiency anaemia
 - b] Abnormalities of RBC
 - c] Osmotic fragility test
- Q3. Attempt any one detail
- a] Describe in detail about CSF examination.
 - b] Write in detail about direct and indirect method of coomb's test.

PAPER V (HISTOTECHNOLOGY)

- Q.1 Shorts notes on [any Five]:-
- a] Cryostat
 - b] Celloidin Embedding
 - c] Honing
 - d] Mounting of section
 - e] Malignancy
 - f] Gram's staining
- Q2. Explain [any Two] :-
- a] Decalcification
 - b] Storage & mounting of museum specimen
 - c] May Grunwald Giemsa stain
- Q3. Attempt any one detail
- a] Explain staining of tissue section by using Hematoxylin & Eosin staining method. Explain special staining techniques used in histopathology.
 - b] Describe in detail about various steps of tissue processing & most commonly used stain.

PAPER VI (LABORATORY MANAGEMENT)

- Q.1. Short notes on [any Six] :-
- a] Types of lab. Reporting system
 - b] Centrifuge
 - c] SCF analysis
 - d] pH Meter
 - e] Different types of solution present in lab.
 - f] Disposal of Lab. waste
 - g] Advantages and disadvantages of NHP
- Q.2. Explain [any Two] :-
- a] Intrinsic quality control
 - b] Structure and management of a modern lab.
 - c] Principle, working and after care of colorimeter.
- Q.3. Attempt any one in detail with appropriate diagram
- a] What is sterilisation? Write about principle, working, usage and care of autoclave with appropriate diagram.
 - b] What are the causes of accidents in the lab.? What are the precautions to be taken to avoid them.

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FIRST YEAR FINAL EXAMINATION

DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY

PAPER I (ANATOMY & PHYSIOLOGY)

Q1. Shorts notes on [any Five]:-

- | | |
|------------------------------------|----------------------|
| a] Lungs | b] Epithelial tissue |
| c] Functions and production of CSF | d] Salivary gland |
| e] Gall bladder | f] Larynx |

Q2. Explain [any Two]:-

- | | |
|--------------------------------------|--------------------------------|
| a] Composition of blood. | b] Female reproductive system. |
| c] Function and structure of stomach | |

Q3. Attempt any one detail

- | |
|--|
| a] Write about structure & function of the organs of renal excretory system. |
| b] Explain about small & large intestine with diagram. |

PAPER II -MICROBIOLOGY-I

Q.1 Short notes on [any Six] :-

- | | |
|--|------------------------------|
| a] Urease Test | b] Water Bath |
| c] Growth curve of bacteria | d] Hot Air Oven |
| e] Negative Staining | f] Staining by Hiss's method |
| g] Clasify bacteria according to arrangement of flagella | |

Q2. Explain [any Two] :-

- | |
|---|
| a] ImVic's Reaction |
| b] Culture of Salmonella Typhi and Salmonella Paratyphi |
| c] Shigella and Pseudomonas |

Q3. Attempt any one in detail with appropriate diagram

- | |
|--|
| a] Write about Hot ZN staining method for mycobacterium & Cold ZN Staining? |
| b] Write about sterilisation with its principle types and examples illustrating their usage. |

PAPER III - BIOCHEMISTRY-I

Q1. Short notes on [any Six] :-

- | | | |
|--------------------|--------------------------|---------------|
| a] Amino acid | b] photometric procedure | |
| c] Benedict's test | d] PH-meter | e] Co-enzymes |
| f] Normality | g] Buffer solution | |

Q2. Explain [any Two] :-

- | |
|--|
| a] Glucose Tolerance Test |
| b] Define Glycolysis and Energetics of carbohydrate metabolism |
| c] What is Transamination? Write significance |

Q3. Attempt any one in detail

- | |
|--|
| a] Define principle,procedure & reagents used for Blood Urea Estimation. |
| b] Define principle,procedures and reagents used for serum uric acid estimation by Caraway method. |

PAPER IV (HAEMATOLOGY)

Q.1 Shorts notes on [any Six] :-

- | | |
|--|---------------------------------------|
| a] Red cell indicis | b] ESR Estimation |
| c] Blood Anticoagulants | d] Procedure for fetal Hb. Estimation |
| e] Clotting Factors | f] Cross Matching of blood |
| g] Thick and thin peripheral blood smear | |

Q2. Explain [any Two] :-

- | | |
|--|-------------------------|
| a] Different types of WBC | b] Abnormalities of RBC |
| c] Different sites and methods of blood collection | |

Q3. Attempt any one in detail with appropriate diagram

- | |
|---|
| a] Describe the complete process of haemostasis in detail. |
| b] Describe in detail about various methods of Hb estimation. Mention all apparatus, procedure, findings, normal and abnormal values. |

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SECOND YEAR FINAL EXAMINATION

DIPLOMA IN MEDICAL LABORATORY TECHNOLOGY

PAPER-V (PARASITOLOGY., SEROLOGY AND VIROLOGY)

- Q.1 Short notes on [any Six] :- [7 x 6 = 42]
- a] Egg cell of H.Nana
 - b] TRUST Antigen test for syphilis.
 - c] Cyst of Giardia Lambia
 - d] CRP slide Test
 - e] Procedure for Widal Test
 - f] Antigen-Antibody Reaction
 - g] Routine physical examination of stool.
- Q2. Explain [any Two] :-
- a] Differentiate between T.Saginata and T.Solium.
 - b] Pre-cystic and cystic form of E.Histolytica
 - c] Simple & Zinc sulphate centrifugal methods of stool floatation tech
- Q3. Attempt any one in detail with appropriate diagram
- a] Explain the life cycle of Enterobius Vermicularis in detail?
 - b] Explain the life cycle of Ascaris Lumbricoides in detail?

PAPER-VI BIOCHEMISTRY-II

- Q1. Short notes on [any Six] :-
- a) Working of Photometer
 - b) Jaundice
 - c) Serum Pottasium
 - d) Hyperthyroidism
 - e) Changes in blood sample on keeping for long period.
 - f) Test for Bile pigment
 - g) Serum Phosphorus
- Q2. Explain [any Two] :-
- a) Principle, Reagent used and Procedure for SGPT.
 - b) About cholesterol and procedure for its estimation.
 - c) Principle, Procedure and normal value of Alkaline Phosphatase.
- Q3. Attempt any one in detail with appropriate diagram
- a) Write Principle, Reagent used, Procedure and interpretation of results for estimation of Serum Uric acid by Caraway method.
 - b) Write Principle, Reagent used, Procedure & interpretation of results for estimation of Plasma Protein A/G Ratio by blurate method.

PAPER VII- HISTOTECHNOLOGY

- Q.1 Short notes on [any Five] :-
- a] Museum Techniques
 - b] Mounting Media
 - c] Types of Hones
 - d] Frozen Section
 - e] L-Moulds
 - f] Types of Microtome Knives
- Q2. Explain [any Two] :-
- a] Types of Microtomes
 - b] Special stains used in histopathology
 - c] Decalcification of tissue
- Q3. Attempt any one in detail
- a] Describe in detail about various steps of tissue processing & most commonly used stains in histopathology.
 - b] Write about exfoliative cytology. Describe various specimens studied by exfoliative cytology, preparation of smear and staining in detail.

PAPER VIII - LABORATORY MANAGEMENT

- Q.1. Short notes on [any Five] :-
- a) Incubator
 - b) Hot air oven
 - c) CSF analysis
 - d) Accidents by acids and alkalies. Their management
 - e) Qualitative and quantitative report system
 - f) Centrifuge- Principle and working
- Q.2. Explain [any TWO] :-
- a) Different types of glassware used in Lab.
 - b) Usage of anticoagulants in Lab.
 - c) Definition of quality. Explain internal quality control programme.
- Q.3. Attempt any one in detail with appropriate diagram
- a] Duties & responsibilities of a Medical laboratory Technician.
 - b] Describe principle, usage working and after care of autoclave.

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FINAL EXAMINATION

DIPLOMA IN X-RAY TECHNOLOGY

PAPER I (ANATOMY & PHYSIOLOGY)

- Q.1 Write short note on (any Five)
- a] Skull
 - b] Uterus
 - c] Blood Cells
 - d] Bones of lower limb
 - e] Pulmonary function tests
 - f] Parathyroid Gland
- Q.2 Explain (Any two)
- a] Systemic Circulation of heart
 - b] Function and structure various types of bones
 - c] Formation of vertebral column
- Q.3 Attempt any one in detail with appropriate diagram
- a] Write down various organs of digestive system. Describe anatomy and physiology of oral cavity and pharynx.
 - b] Draw a well labeled diagram of Renal Excretory System and elaborate its anatomical structure and function.

PAPER II (GENERAL PHYSICS)

- Q.1. Short notes on [any Six] :-
- a] Thermal Relay
 - b] Radiotherapy Anode
 - c] Types of Transformers
 - d] Advantages of rotating anodes
 - e] Heat Convection
 - f] Physical properties of tungsten material
 - g] Typical design of x-ray tube and x-ray production
- Q.2. Explain [any Two] :-
- a] Types of Interlocks
 - b] Why filament of the x-ray tube does not break, when high Kvp is applied, whereas filament is heated at 10-12 volts?
 - c] How diode act as a rectifier in an x-ray tube?
- Q.3. Attempt any one :
- a] Explain with the help of circuit diagram about various types of x-ray circuits used in the portable x-ray units and large mA units.
 - b] Explain with the help of an circuit diagram about the conversion of alternating current into pulsating direct current.

PAPER III - RADIATION PHYSICS

- Q.1 Shorts notes on [any Five]:-
- a) Grid ratio
 - b) X-ray Beam collimators
 - c) Scintillation counters
 - d) Photo electric effect
 - e) Half wave rectifier X-ray Circuit
 - f) Heavy metal filters
- Q2.Explain [any Two] :-
- a) Line focus principle
 - b) Interaction of X-rays responsible for scatter radiation
 - c) Biological effects of radiation
- Q5. Attempt any one detail
- a) Describe construction of grid. And explain conditions causing grid cut off.
 - b) What is the role of transformer? Discuss in details step up & step down transformer with circuit diagram.

INSTITUTE OF PARA MEDICAL TECHNOLOGY



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FINAL EXAMINATION

DIPLOMA IN X-RAY TECHNOLOGY

PAPER IV (DARK ROOM TECHNIQUES)

Q1. Shorts notes on [any Six]:-

- a) Structure of Double coated x-ray film
- b) Mammography films
- c) Disadvantages of using I.Screens
- d) Types of Phosphors used in I.Screens
- e) Types of film fogging on radiographs
- f) Intensifying screen Speed
- g) Factors affecting quality of radiograph during processing

Q2. Explain [any Two]:-

- a) Preparation of silver Iodobromide emulsion
- b) Different types of x-ray cassettes
- c) Various processes of Interaction of X-rays with Matter

Q5.a) Write in detail about the legal responsibilities of radiographer.

- b) Write about Latent Image formation in an film emulsion and its conversion into visible image after processing.

PAPER V (RADIOGRAPHIC POSITIONING)

Q.1 Shorts notes on [any Five]:-

- a) Subtalar joint view
- b) Radiographic views for Acromio-Clavicular joint.
- c) Ball catchers view.
- d) Submento Vertical View.
- e) Intra-oral Periapical Radiography
- f) Radiographic views for left clavicle.

Q2. Explain [any Two]:-

- a) Mammographic techniques and positioning.
- b) Stryker's view.
- c) Radiographic techniques for suspected pneumothorax.

Q3. Attempt any one detail

- a) Discuss various views and techniques for radiographic imaging of the para nasal sinuses with diagrams.
- b) Radiographic imaging in spine injuries. Also add a note on the precautions to be followed during radiographic evaluation of such patients.

PAPER VI (SPECIAL INVESTIGATION PROCEDURES)

Q.1. Short notes on [any Six] :-

- a) Oral Cholecystography
- b) Blood & its constituents
- c) Anaemia
- d) Venography of upper limb
- e) Arthrography
- f) Suction Machine
- g) Diff. between benign & Malignant tumour

Q.2. Explain [any Two] :-

- a) I.V.P.
- b) Barium Swallow.
- c) P.E.G.

Q.3. Attempt any one in detail with appropriate diagram

- a) How you will evaluate spinal cord with the help of contrast media.
- b) Write in detail about procedure for evaluating femal genital organ.

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FIRST YEAR FINAL EXAMINATION
DIPLOMA IN X-RAY TECHNOLOGY

PAPER I (ANATOMY & PHYSIOLOGY)

- Q.1 Shorts notes on [any Six] :-
- | | |
|-----------------------|------------------------------------|
| a] Facial bones | b] Structure & Function of Pharynx |
| c] Structure of heart | d] Structure & Function of Spleen |
| e] Lungs Volume | f] Epithelium Tissue |
| g] Menstrual Cycle | |
- Q2. Explain [any Two] :-
- | | |
|---------------------------------|------------------------------|
| a] Systemic Circulation of body | b] Pancreas and Gall bladder |
| c] Bony Joints | |
- Q3. Attempt any one in detail with appropriate diagram
- | | |
|--|--|
| a] Write in details about various digestive enzyme secreted in alimentary tract with their action. | |
| b] Write in detail about process of respiration and parts involved in respiratory system with well labelled diagram. | |

PAPER II (GENERAL PHYSICS)

- Q1. Shorts notes on [any Five] :-
- | | |
|-----------------------------|--------------------------------------|
| a] X-ray tube interlocks | b] Laws of electromagnetic induction |
| c] Radiotherapy Anode | d] Advantages of AC over DC |
| e] Pulsating Direct current | f] Rotating Anode X-ray tube |
- Q2. Explain [any Two] :-
- | | |
|--|--|
| a] Factors controlling rate of heat conduction | |
| b] Laws, working and construction of transformer | |
| c] Working of a Diode, as rectifier | |
- Q3. a] Explain with the help of circuit diagram about high voltage circuit employed X-ray machine.
- b] Explain various types of X-ray circuits employed in an X-ray machine with the help of circuit diagrams.

PAPER III - RADIOGRAPHIC POSITIONING (ROUTINE) - I

- Q1. Radiographic procedures on [any Six] :- [7x6=42]
- | | |
|---------------------------------------|---------------------------------------|
| a] Wrist AP and Lateral view | b] Axial view of Knee joint |
| c] Chest-decubitus view | d] Semi Axial view of pelvic joint |
| e] Cone view for LS Spine | f] Lateral view of Lt. optic foramina |
| g] Ankle joint Lateral and axial view | |
- Q2. Explain [any Two] :-
- | | |
|-----------------------------------|-----------------------------|
| a] Cervical Spine-Open mouth view | b] Radiography for TM Joint |
| c] All possible views for PNS | |
- Q3. a] Radiography of upper limb in case of fracture suspected head of humerus
- b] Radiography of skull in case Fracture suspected in frontal & temporal bone

PAPER IV - SPECIAL INVESTIGATION PROCEDURES-I

- Q1. Shorts notes on [any Five] :-
- | | |
|--------------|---|
| a] ERCP | b] Diff. bet. Malignant and Non-Malignant tumour |
| c] Leukaemia | d] Blood and its constituents |
| e] OCG | f] Various contrast used in special investigation |
- Q2. Explain [any Two] :-
- | | | |
|----------|----------|--------------------|
| a] H.S.G | b] I.V.P | c] Barium Meal F.T |
|----------|----------|--------------------|
- Q3. Write in detail about the procedure, contrast used and precautions to be taken during Myelography.

OR

Write in detail about the procedure, contrast used and precautions to be taken during Abdominal Angiography

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SECOND YEAR FINAL EXAMINATION
DIPLOMA IN X-RAY TECHNOLOGY

PAPER V - RADIOGRAPHIC POSITIONING - II

- Q1. Shorts notes on [Any six] :-
- | | |
|--|----------------------------|
| a] Town's view | b] Axial view for patella |
| c] Shoulder AP view | d] Ulnar deviation |
| e] Prone axial view for optic foramina | f] Elbow AP & Lateral view |
| g] Calcaneum lateral view for spur | |
- Q.2. Explain [Any Two] :-
- | | |
|-----------------------|------------------|
| a] P.N.S. Radiography | b] Chest PA View |
| c] KUB Radiography | |
- Q3. Attempt any one in detail with appropriate diagram
- | |
|--|
| a] Radiography of skull in case fracture is suspected in maxilla bone. |
| b] Explain the possible views which are essential in case of SAIO. |

PAPER VI (RADIATION PHYSICS)

- Q1. Shorts notes on [any Six]:-
- | | |
|---|--------------------------------------|
| a] mAs | b] Half life period |
| c] Process of Attenuation | d] First free air ionisation chamber |
| e] Types of Beam Restrictors | f] Radiation protection to operator |
| g] Application of Inverse square law in radiography | |
- Q2. Explain [any Two]:-
- | |
|--|
| a] Construction and working of G.M. Counter |
| b] Grid cut off (combined short and long FFD with decentering) |
| c] Scintillation counter working and structure. |
- Q3. a] Explain the factors controlling quality and quantity of x-ray beam.
b] Explain various types of grids used in radiography, according to their structure with appropriate diagrammatic illustrations.

PAPER VII - DARK ROOM TECHNIQUES

- Q1. Shorts notes on [any Five]:-
- | | |
|------------------------------|---|
| a] Film Structure and speed | b] Intensifying Screen Structure and Speed |
| c] Types of Phosphors | d] Calibration of X-Ray tube |
| e] Composition- Manual fixer | f] Factors controlling Intensification factor |
- Q2. Explain [any Two]:-
- | |
|--|
| a] Film Gamma and Latitude of the X-Ray film |
| b] X-Ray tubes for low dose mammography |
| c] Types of unsharpness produced on the x-ray film |
- Q3. a] Discuss the factors responsible for quality of radiographs during processing.
OR
b] Discuss various types of Interaction of X-Rays with matter.

PAPER VIII - SPECIAL INVESTIGATION PROCEDURES - II

- Q.1. Write Radiographic views and procedures of [any Five] :-
- | | | |
|---------------|----------------------------|-------------------|
| a) Metastasis | b) Barium Swallow | c) Anaemia |
| d) ERCP | e) Intravenous Pyelography | f) Contrast Media |
- Q.2. Explain the procedure for [any Two] :-
- | | |
|--------------------------|-----------------------------|
| a) HSG | b) Venography of lower limb |
| c) Barium Follow Through | |
- Q.3. Attempt any one :
- | |
|---|
| a] Write the complete Patient instructions, procedure, views and contrast to rule out Gall Bladder organ in detail. |
| b] Write the complete Patient instructions, procedure, views and contrast to rule out Spinal Canal in detail. |

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FINAL EXAMINATION

DIPLOMA IN OPHTHALMIC ASSISTANT

PAPER I (ANATOMY & PHYSIOLOGY)

- Q.1 Short notes on [any Five]:-
- | | |
|--------------------------------|-------------------|
| a] Lacrimal Glands | b] Stomach |
| c] Conduction Pathway of heart | d] Salivary Gland |
| e] Liver | f] Animal cell |
| g] Facial & Cranial Bones | |
- Q2. Explain [any Two] :-
- Cross Section of Eyeball
 - Types of Bony Joints
 - Structure and Function of Heart
- Q5. Attempt any one detail with appropriate diagram
- Write about renal excretory system alongwith suitable diagram.
 - Write about process of respiration

PAPER II (OPTICAL PHYSICS)

- Q.1. Short notes on [any Five] :-
- | | |
|---|------------------------------|
| a) Astigmatic Lenses | b) Periscope |
| c) Parabolic mirror | d) Laws of Refraction |
| e) Luminous & Non- Luminous objects | f) Visible spectrum of light |
| g) Images formed in case of Concave lens. | |
- Q.2. Explain [Any Two] :-
- Regular and diffuse reflection.
 - Discuss the factors controlling the rate of conduction of heat.
 - Real and Apparent depth in case of pond of water.
- Q.3. Attempt any one in detail with appropriate diagram
- Explain with a ray diagram alongwith an example that refractive index remains constant with varying angle of incidence in glass slab.
 - Explain the behaviour of ray when it passes through a prism, Mention all its formed angles.

PAPER III (REFRACTION)

- Q1. Short notes on [any Five]:-
- Anisometropia
 - Far point and near point
 - Emmetropia and Ametropia
 - Sturm's conoid
 - Aphakia
 - Refractive surfaces
- Q2. Explain [any Two]:-
- Tonometry
 - objective method of Refraction
 - Accommodation and convergence.
- Q3 Write in detail (any one)
- Explain keratometry

OR

Explain procedure of Retinoscopy

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DIPLOMA IN OPHTHALMIC ASSISTANT



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PAPER IV (VISUAL OPTICS & EYE DISEASES)

Q.1. Short notes on [any Five] :-

- | | |
|------------------|--------------------------------|
| a] Trachoma | b] Phakomorphie Glaucoma |
| c] Amblyopia | d] Uses of soft contact lenses |
| e] Corneal ulcer | f] Accommodation |

Q.4. Explain [Any Two] :-

- The diagnosis of squint in a patient
- Uses of YAG laser in the eye
- Diabetis and the eye

Q.3. Attempt any one in detail with appropriate diagram

- Explain about the surgical treatment of cataract and its diagnosis.
- Explain in detail the Sturm's conoid.

PAPER V (OPHTHALMIC OPTICS AND DISPENSING)

Q1. Short notes on [any Five] :-

- | | |
|---------------------------------|-------------------------------------|
| a] Cylindrical lenses | b] Segments and chambers of eyeball |
| c] Effect of Refractive index | d] Refractive index of a glass slab |
| e] Cross cylinder transposition | f] Characteristics of Prism |

Q2. Explain [any Two] :-

- Transposition of lenses
- Reflection of light rays on an uneven surface
- Spectacles and lens material

Q5. a] Explain in detail about human eye and its function

OR

- Describe in detail the refraction of light rays through convex, concave and cylindrical lenses

PAPER VI (OCULAR PHARMACOLOGY)

Q.1 Short notes on [any Five] :-

- Toxic effect of Barbiturates
- Antibiotics
- Asepsis measures during surgeries
- Effect of steroids
- Local Anaesthesia
- Analgesics and anti-inflammatory drugs

Q2. Explain [any Two] :-

- Tolerance and Intolerance of Mydriatic Drugs
- Drug's administration procedures
- Toxicity of drugs

Q3. Attempt Any One

Describe in detail about the different modes of drug administration.

OR

Describe about absorption and excretion of drugs in detail.

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FIRST YEAR FINAL EXAMINATION
DIPLOMA IN OPHTHALMIC ASSISTANT



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PAPER I (ANATOMY & PHYSIOLOGY)

Q1. Shorts notes on [any Five]:-

- | | |
|---------------------------|--------------------------|
| a) The bones of the Orbit | b) Adrenal glands |
| c) Carpal bones | d) Carotid Arteries |
| e) Intra-ocular pressure | f) The chambers of heart |
| g) The facial bones | |

Q2. Explain [any Two]:-

- Circulation of blood
- The excretory system
- The parts of the brain

Q3. a) Draw well labelled diagram of cross section of the eye.

OR

b) Describe in detail the digestion of food in our body.

PAPER II (OPTICAL PHYSICS)

Q.1. Short notes on [any Five] :-

- | | |
|--|-----------------------|
| a) Visible spectrum of light | b) Parabolic mirror |
| c) Periscope | d) Laws of Refraction |
| e) Luminous & Non- Luminous objects | f) Astigmatic Lenses |
| g) Images formed in case of Convex lens. | |

Q.2. Explain [Any Two] :-

- Discuss the factors controlling the rate of convection of heat.
- Real and Apparent depth in case of water.
- Regular and diffuse reflection.

Q.3. Attempt any one in detail with appropriate diagram

- Explain the behaviour of ray when it passes through a prism, Mention all its formed angles.
- Explain with a ray diagram alongwith an example that refractive index remains constant even angle of incidence is changed in case of glass slab.

PAPER III (OPHTHALMIC OPTICS AND DISPENSING)

Q.1. Short notes on [any Five] :-

- | | |
|---|----------------------|
| a) Reflection of light through plane mirror | b) Myopia |
| c) Photochromatic lenses | d) Hypermetropia |
| e) Types of Spectacle frames | f) Astigmatic Lenses |

Q.2. Explain [Any Two] :-

- Reflection of light through concave mirror
- Reflection of light through Convex mirror
- Strum's conoid

Q.3. Attempt any one in detail with appropriate diagram

- Describe in detail the refraction of light rays through convex, concave and cylindrical lenses
- Explain Spectacles and lens material.

INSTITUTE OF PARA MEDICAL TECHNOLOGY

ASSIGNMENT

SECOND YEAR FINAL EXAMINATION
DIPLOMA IN OPHTHALMIC ASSISTANT



R

PAPER IV (REFRACTION - I)

- Q.1. Short notes on [any Five] :-
- | | |
|--------------------------------------|-------------------------|
| a) Duchrome Test | b) Uses of Prism in eye |
| c) Amblyopia | d) Astigmatism |
| e) Visual Acuity | f) Fogging |
| g) Optical correction in Keratoconus | |
- Q.2. Explain [Any Two] :-
- Difference between Myopia and Hypermetropia
 - Worth four dot test
 - Refraction of light rays through a circular glass slab
- Q.3. Attempt any one in detail with appropriate diagram
- Explain in detail the process of retinoscopy.
 - Explain in detail the various mydriatic-cyclopagic eye drops used for refraction along with their side effects and risks.

PAPER V (REFRACTION - II)

- Q.1. Short notes on [any Five] :-
- | | |
|--------------------------|--------------------|
| a) Trial Box | b) Snellen's Chart |
| c) Astigmatic Fan | d) Cover Test |
| e) Direct Ophthalmoscope | f) Maddox wing |
| g) Biometry | |
- Q.2. Explain [Any Two] :-
- Low Visual Aids
 - Contact Lens
 - IOL Implantation
- Q.5. Attempt any one in detail with appropriate diagram
- Explain in detail the process recording of visual acuity.
 - Explain the classification of squint in detail. Write in short about the use of synoptophore.

PAPER VI (VISUAL OPTICS & EYE DISEASES)

- Q.1. Short notes on [any Five] :-
- | | |
|--------------------------------|------------------|
| a) Amblyopia | b) Corneal Ulcer |
| c) LASIK | d) Accomodation |
| e) Entropion | f) Trachoma |
| g) Uses of soft contact lenses | |
- Q.2. Explain [Any Two] :-
- Diabetes and the eye
 - YAG Laser uses
 - Squint Diagnosis
- Q.3. Attempt any one in detail with appropriate diabram
- Explain about the surgical treatment of catarct and its diagnosis.
 - Explain the manifestations of AIDS in the eye.

INSTITUTE OF PARA MEDICAL TECHNOLOGY

ASSIGNMENT

FINAL EXAMINATION

DIPLOMA IN O.T. TECHNOLOGY



R

PAPER I (ANATOMY & PHYSIOLOGY)

- Q.1 Shorts notes on [any Five] :-
- | | |
|---------------|-----------|
| a) Flat bones | d) Nose |
| b) Ureter | e) Larynx |
| c) Liver | f) Lungs |
- Q2. Explain [any Two] :-
- Process of External respiration.
 - Structure and function of normal human cell.
 - Composition of blood.
- Q3. Attempt any one in detail with appropriate diagram
- Describe chambers of heart with the help of well labeled diagram.
- OR
- Draw a labeled diagram of digestive system. Describe structure, function, secretions of stomach & duodenum.

PAPER II (SURGICAL INSTRUMENTS & MONITORING)

- Q.1. Write about the instruments used and their care [on any Five] :
- | | |
|--------------------------|---------------------------------|
| a) Boyle's Apparatus | b) Restriction of entry to O.T. |
| c) Cardiac Defibrillator | d) Operating Microscope |
| e) Endoscope | f) Suction Machine |
- Q.2. Explain [any Two] :
- Ventilator
 - Discuss various chemical hazards in an O.T.
 - Care of patient after operation.
- Q.3. Explain the management and care of operation theatre basic instruments?
- OR
- Explain in detail about maintenance of operation theatre lighting.

PAPER III (OPERATION THEATRE ETHICS AND DISCIPLINE)

- Q.1 Shorts notes on [any Five]:-
- Pre operative care of patient
 - Role of CSSD
 - Radiation protection of the patient
 - Disinfection of OT before surgery
 - Preparation of instrument trolley
 - Six inductive agents
- Q2. Explain [any Two]:-
- Define pre & post operative care of patient?
 - Define duties & responsibilities of OT technician?
 - Explain effects of radiation?
- Q3. Attempt any one detail
- Explain in detail about the behavior of OT technician with senior & patient?
- OR
- How to sterilized the instruments in case of emergency?

INSTITUTE OF PARA MEDICAL TECHNOLOGY



R

ASSIGNMENT

FINAL EXAMINATION

DIPLOMA IN O.T. TECHNOLOGY

PAPER IV (SURGICAL PROCEDURES)

- Q.1. Write in short about the procedure for [any Five] :
- | | |
|----------------|-----------------|
| a] Metastasis | b] Angioplasty |
| c] Nephrectomy | d] Pacemaker |
| e] Liposuction | f] Tracheostomy |
- Q.2. Explain [any Two] :
- | |
|--------------------------------|
| a] Benign and Malignant Tumour |
| b] Reduction of Nasal Fracture |
| c] Fistula surgery |
- Q.3. Explain in detail about the process of CABG and precautions to be taken during the procedure.

OR

Explain in detail about the process of D&C and precautions to be taken during the procedure.

PAPER V (STERILISATION AND DISINFECTION)

- Q.1. Write about the instruments used and their care [any Five]:
- | | |
|---------------------------------|--|
| a] Sterilization by Radiation | b] Control & Checking of Sterilization |
| c] Sterilization by Coagulation | d] Dry heat method of sterilization |
| e] Sterilization by Filtration | f] Boiler and Autoclaving |
- Q.2. Explain [any Two] :
- | |
|--|
| a] Making and maintenance of formalin chamber. |
| b] Various types of disinfectants used in OT. |
| c] Controlling spread of infection and disposal of OT waste. |
- Q.3. Explain the process in detail for sterilising various instruments and fluids in Operation theatre in an emergency.

OR

Explain in detail about the process of Cleaning blunt and sharp instruments before and after surgery.

PAPER VI (ANAESTHESIA)

- Q.1. Write short notes on [any Five] :
- | | |
|-----------------------|--------------------------------|
| a] CPR | b] Lumbar Puncture |
| c] Spinal anaesthesia | d] Complication of anaesthesia |
| e] Endotracheal tube | f] Vasoconstrictors |
- Q.4. Explain [any Two] :
- | |
|--------------------------|
| a] Maintenance of airway |
| b] Epidural Anaesthesia |
| c] Topical Anaesthesia |
- Q.5. Explain in detail about precautions to be taken before providing General Anaesthesia to the patient.

OR

Describe in detail the mechanism, classification and techniques of local anaesthetic drug.

INSTITUTE OF PARA MEDICAL TECHNOLOGY

ASSIGNMENT

FIRST YEAR FINAL EXAMINATION
DIPLOMA IN O.T. TECHNOLOGY



R

PAPER I (ANATOMY & PHYSIOLOGY)

- Q.1 Short notes on [any Five] :-
- Process of clotting of blood
 - Long bones
 - Left ventricle of heart
 - Liver- Structure & function
 - Gastric juice- composition and action
 - Skull-Bones and sutures
- Q2. Explain [any Two] :-
- Pulmonary circulation
 - Process of external respiration.
 - Define tissue & describe types of epithelial tissue.
- Q3. Attempt any one in detail with appropriate diagram
- Describes anatomy & physiology of human urinary system with well labeled diagram.
 - Draw a labeled diagram of digestive system. Describe oral cavity, composition and action of saliva and salivary glands.

PAPER II (SURGICAL INSTRUMENTS AND MONITORING)

- Q.1. Write in short about instruments used and care [on any Five]
- Cardiac monitor
 - Ventilator
 - Operating Microscope
 - Orthopaedic set
 - Defibrillator
 - Fumigator
- Q.2. Explain [any Two] :
- OT Table and different position for surgery.
 - General surgical instruments.
 - General ethics of OT technician.
- Q.3. Explain the maintenance and use of endoscope.

OR

Explain in detail about operation theatre rules, precautions to be taken and prevention guidelines for operation theatre technician.

PAPER III (GENERAL SURGICAL PRINCIPLES)

- Q.1. Write in short notes about [on any Five] :
- Type of sutures
 - Post-Op dressing
 - Purpose of drain
 - Types of surgical blades
 - Haemostasis
 - Traditional sutures
- Q.2. Explain [any Two] :
- Defibrillator
 - Methods of incision making
 - Technique of using heat & electric cautery.
- Q.3. Write in detail about modern method of wound closure.

OR

Write in detail about the preparation of surgical patient and instructions to be followed by him prior to surgery.

PAPER IV (STERILIZATION AND DISINFECTION ETC.)

- Q.1. Write in short about the instruments used and care [any Five]:
- Boiling
 - Control and checking of sterilization
 - Sterilization by radiation
 - Formalin chamber
 - Chemical Sterilization
 - fumigation
- Q.2. Explain [any Two] :
- Sterile technique to be adapted before entering OT
 - Moist heat method of sterilization
 - Disposal of OT waste
- Q.3. Explain the process in detail for disinfecting the OT.

OR

Explain in detail about the process of Cleaning blunt and sharp instruments before and after surgery.

INSTITUTE OF PARA MEDICAL TECHNOLOGY



R

ASSIGNMENT

SECOND YEAR FINAL EXAMINATION

DIPLOMA IN O.T. TECHNOLOGY

PAPER V (SURGICAL PROCEDURES - I)

- Q.1. Write in short about the procedure for [any five] :
- a] Diathermy b] Endoscope c] Canthotomy
d] Amputation e] Pterigium f] IOL Implantation
- Q.2. Explain [any Two] :
- a] Electrical & Fire hazards in OT b] Removal of gall bladder by surgery
c] Drainage of ascitic abdominal fluid
- Q.3. Explain in detail about preparation of OT for any major surgery.

OR

Describe about preparation of abdominal part the patient prior to surgery and essential investigation required for general anaesthetic clearance.

PAPER VI (ANAESTHESIA)

- Q.1. Shorts notes on [any Five]:-
- a] Mitotic & mydriatic drugs. b] Surgical antiseptics.
c] Fluorescein eye drops. d] Sedation and respiratory discomfort.
e] Brain haemorrhage. f] Coronary care.
- Q2. Explain [any Two]:-
- a] General anaesthesia. b] Vasoconstrictors. c] Spinal anaesthesia.
- Q3. Attempt any one detail
- a] Explain about important for pre-anaesthetic check-up and the tests required for the same.
b] Describe mechanism, classification & techniques of local anaesthetic drug.

PAPER VII (SURGICAL PROCEDURES - II)

- Q.1. Write in short about the procedure for [any Five] :
- a] Mammonoplasty b] Femoropopliteal Bypass
c] Lithotripsy d] Cleft Lip
e] Arteriovenous Fistula f] Craniotomy
- Q.2. Explain [any Two] :
- a] Benign and Malignant Tumour b] Hysterectomy
c] Dilatation of the Cervix and Currettage of the Uterus
- Q.3. Explain in detail (On any One)
- a) Process, instruments used and precautions to be taken during the procedure of Ceasaran section.
b) Explain in detail about the process, instruments used and precautions to be taken during the procedure of Ventricular Shunts.

PAPER VIII (OPERATION THEATRE ETHICS/DISCIPLINE)

- Q.1. Write in short about the procedure for [any five] :
- a] Somatic & Genetic effects of Radiation
b] Methods of Checking of infection in an OT
c] Cleaning of OT d] Storage of emergency drugs
e] Most essential requirement in OT related to power supply
f] Essential requirements before shifting of the patient in OT
- Q.2. Explain [any Two] :
- a] Emergency steps to be taken in case of sudden vacuum failure
b] Emergency & Management in case of oxygen gas supply failure in OT.
c] Management of disposables and injectables in an OT.
- Q.3. Explain in detail about the instructions given to the patient before and after major surgery, behaviour with the patients and attendants.

OR

Explain in detail about the process of assisting and shifting of completely paralysed patient before and after surgery.

INSTITUTE OF PARA MEDICAL TECHNOLOGY

ASSIGNMENT



R

FINAL EXAMINATION

CERTIFICATE IN E.C.G. TECHNOLOGY

PAPER -Theory (ELECTROCARDIOGRAPHY)

Q.1. Write short notes on (Any Five)

- a) Cardiac Monitor
- b) Treadmill Test
- c) ECG features of WPW Syndrome
- d) Echocardiography
- e) Measurement of Blood Pressure
- f) Chest Leads

Q.2. Explain (Any Two)

- a) Normal conducting system of Heart
- b) ECG findings in MI
- c) ECG findings in Arrhythmias

Q.5. Explain in detail Normal P Q R S T waves and PR interval & S T segment

OR

Explain in detail 12 Leads of ECG

INSTITUTE OF PARA MEDICAL TECHNOLOGY

ASSIGNMENT

FINAL EXAMINATION

DIPLOMA IN C.T. TECHNOLOGY



R

PAPER I (ANATOMY & PHYSIOLOGY)

- Q.1 Shorts notes on [any Five]:-
- a] Muscle Tissue
 - b] Neuron Structure
 - c] Functions of Blood
 - d] Bones of upper Limb
 - e] Function of appendicular Skeleton
 - f] Parathyroid Gland
- Q2. Explain [any Two] :-
- a] Central control of Breathing
 - b] Exocrine Gland
 - c] Electrical activity of Heart
- Q3. Attempt any one detail with appropriate diagram
- a] Write down various organs of digestive system. Describe anatomy and physiology of oral cavity and pharynx in detail.
- OR
- b] Draw a well labelled diagram of Renal Excretory System and elaborate its anatomical structure and function in detail.

PAPER II (BASIC FUNDAMENTALS OF CT)

- Q1. Shorts notes on [any Six]:-
- a] Sequel scanning
 - b] Spiral Scanning
 - c] Image reconstruction
 - d] Gantry position protocols
 - e] CT Angiography
 - f] Planes of Body
 - g] Image Artifacts
- Q2. Explain [any Two]:-
- a] Adverse effect of CT
 - b] Advantages CT scanner
 - c] Principle of SCT.
- Q3.a] Explain in detail about the difference CCT and SCT.
- OR
- b] Explain Mechanical Safety measures for using of CT Unit in detail.

PAPER III (GENERAL & RADIATION PHYSICS)

- Q1. Shorts notes on [any Five]:-
- a] Half life period of radioactive substance
 - b] Radiation protection to the operator
 - c] Process of Attenuation
 - d] First free air ionisation chamber
 - e] Types of Beam Restrictors
 - f] Application of Inverse square law in radiography
- Q2. Explain [any Two]:-
- a] Construction and working of G.M.Counter
 - b] Grid cut off (combined short and long FFD with decentering)
 - c] Scintillation counter working and structure.
- Q3.a] Explain the factors controlling quality and quantity of x-ray beam in detail.
- OR
- b] Explain various types of grids used in radiography, according to their stucture with appropriate diagrammatic illustrations.

INSTITUTE OF PARA MEDICAL TECHNOLOGY

ASSIGNMENT

FINAL EXAMINATION

DIPLOMA IN C.T. TECHNOLOGY



R

PAPER IV (APPLIED PHYSICS FOR CT SCAN)

Q1. Shorts notes on [any Five]:-

- a) Phosphorescence and Fluorescence
- b) Computer Central Processing Unit
- c) Off-Focus radiation
- d) Inverse Square Law and its application in CT scan
- e) X-Ray beam Collimators
- f) Scan data rearrangement

Q2. Explain [any Two]:-

- a) Features of Spiral CT
- b) Rotating anode tubes
- c) Factors controlling rate of conduction of heat.

Q3. a) Explain in detail about the mechanical artifacts produced in the image.

OR

b) Explain in detail about the electronic artifacts produced in the image.

PAPER V (DARK ROOM TECHNIQUES)

Q.1. Short notes on [Any Five] :-

- a) Mounting, cleaning and safety of Intensifying screens
- b) Features for X-Ray tube for mammography
- c) Calibration of x-ray tube with varying mA stations
- d) Geometric factors affecting image sharpness
- e) First Aid in X-Ray department
- f) Intrinsic factors for intensification of intensifying screens

Q.2. Explain [Any Two] :-

- a) CR System-Usage and advantages
- b) Image unsharp caused due to using of intensifying screen
- c) Calculating gamma with the help of an example of an x-ray film along with its latitude.

Q.3. Attempt any one in detail

- a) Explain factors that affects radiation exposure and consequently affects the density of a finished radiograph?

OR

- b) Explain legal responsibilities of the radiographer keeping present scenario in mind.

PAPER VI (TECHNIQUES FOR CT SCAN)

Q1. Shorts notes on [any Six]:-

- a) Advantages of Multislice CT Scanning
- b) Imaging of Large Patients
- c) CT Myelography
- d) Sagittal Multi-Planer Reformations Images
- e) Evaluation of Brain Perfusion
- f) Gantry Rotation
- g) Scanning speed

Q2. Explain [any Two]:-

- a) Role of Technologist
- b) Advantages and limitations of spiral CT.
- c) CT Guided Aspiration Biopsy Procedure

Q3. a) Explain in detail about the patient care during CT Scanning and precautions to be observed.

OR

b) Write in detail about the various contrast media used in CT Scanning and precautions to be observed during its administrations and its side effects.

INSTITUTE OF PARA MEDICAL TECHNOLOGY



R

ASSIGNMENT

FINAL EXAMINATION

DIPLOMA IN M.R.I. TECHNOLOGY

PAPER I (MRI ANATOMY)

- Q.1 Shorts notes on [any Five]:-
- Secretions of Anterior Pituitary gland along with their action
 - Pineal Glands- structure and secretions
 - Structure and function of stomach
 - Structure & Function of pectoral Girdle and upper limb
 - Visceral and cardiac muscles
 - Cranial and facial bones
- Q2. Explain [any Two] :-
- Types and parts of bones
 - Anatomy of Pharynx, Larynx and Trachea
 - External and Internal Respiration
- Q3. Attempt any one detail with appropriate diagram
- Write about anatomy renal excretory organs in human body and write about Maintenance of Homeostasis.
 - Write about lymph nodes, lymph ducts and Lymph Nodules related to its anatomy and functions.

PAPER II (BASIC FUNDAMENTALS AND COMPONENTS OF MRI)

- Q.1 Shorts notes on [any Five] :-
- RF Transmitter
 - Acquisition Control
 - Active and Passive shielding
 - Superconducting Magnets
 - Shimming
 - Magnetic Field direction and strength
- Q2. Explain [any Two] :-
- Gradient Orientation, function and strength
 - Spin Density
 - Differentiate between T1 and T2
- Q5. Attempt any one in detail with appropriate diagram
- Write in details about image reconstruction and display in MRI.
 - Write in details about resonance and excitation of RF pulse in MRI.

PAPER III (ROLE OF TECHNOLOGIST & CARE OF PATIENT)

- Q.1 Shorts notes on [any Five] :-
- Personal characteristics and skills
 - Thermal Injuries
 - Occupational risk to operator
 - Emergency during MRI - First Aid.
 - Effects of RF Fields on human body
 - Power Back-up
- Q2. Explain [any Two] :-
- Magnetic Resonance Technologist's duties
 - Effects of combination of Static, Gradient and RF fields during MRI scan
 - Planning of MRI department
- Q3. Attempt any one in detail with appropriate diagram
- Write in details about Grounds of refusal to the patients for undergoing MRI.
 - Write in details about the Inspection and storage, Records and reports, Cost Control.

INSTITUTE OF PARA MEDICAL TECHNOLOGY



R

ASSIGNMENT

FINAL EXAMINATION

DIPLOMA IN M.R.I. TECHNOLOGY

PAPER IV (MR TECHNIQUES AND PROTOCOL)

- Q.1 Shorts notes on [any Six] :-
- | | |
|--------------------------------------|------------------------|
| a] Patient Preparation and Screening | b] Patient Positioning |
| c] Protocol Selection | d] Automatic Prescan |
| e] Fetal MRI | f] Brain Scan Protocol |
- Q2. Explain [any Two]:-
- Position slices and saturation bands
 - Breat Diagnostics and Biopsies
 - Distortion of Image
- Q3. Attempt any one in detail with appropriate diagram
- Write about magnetized tissue and magnetic nuclei.
 - Write about visualized characteristics of Magnetic resonance image.

PAPER V (MRI IMAGING HARDWARE AND PRESENTATION)

- Q.1 Shorts notes on [any Five] :-
- | | |
|-------------------------|-------------------------|
| a] Sound to noise ratio | b] Frequency encoding |
| c] Water Phantom | d] Image reconstruction |
| e] Data aquisition | f] Image processor |
- Q2. Explain [any Two] :-
- Gradient Coils
 - Surface Coils
 - RF Detectors
- Q3. Attempt any one in detail with appropriate diagram
- Components of MRI system.
 - Shim Coils.

PAPER VI (ADVANCED IMAGING TECHNIQUES)

- Q.1 Shorts notes on [any Five] :-
- | | |
|-----------------------|--|
| a] Projectile Effect | b] Diffusion MRI |
| c] Real Time MRI | d] Magnetic resonance angiography |
| e] Interventional MRI | f] Magnetic resonance spectroscopy (MRS) |
- Q4. Explain [any Two] :-
- Cardiac MRI
 - Multinuclear Imaging
 - NMR
- Q5. Attempt any one in detail with appropriate diagram
- MR spectroscopy.
 - MRCP.

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R

ASSIGNMENT

FINAL EXAMINATION

DIPLOMA IN CATH. LAB. TECHNOLOGY

PAPER I (CARDIOVASCULAR AND GENERAL ANATOMY)

- Q.1. Write short notes on [any Five] :
- a] Function of Cardiovascular system
 - b] Process of respiration
 - c] Hemostasis
 - d] Arch of Aorta
 - e] Normal route of contraction of an heart
 - f] Regulation of Blood Pressure
- Q.2. Explain [any Two] :
- a] Bipolar, unipolar & Augmented leads recorded in 12 lead E.C.G.
 - b] Portal Circulation
 - c] Significances of P,Q,R,S,T waves and intervals.
- Q.3. Attempt any one detail with appropriate diagram
- a] Write about anatomy renal excretory organs in human body and write in detail about Maintenance of Homeostasis.
- OR
- b] Write in detail about lymph nodes, lymph ducts and Lymph Nodules related to its anatomy and functions.

PAPER II (MICROBIOLOGY AND PATHOLOGY)

- Q.1 Write short notes on (any five)
- a) Albert stain
 - b) Hot Air oven
 - c) Chocolate Agar
 - d) Rickets
 - e) Gastric Ulcer
 - f) Pernicious Anaemia
- Q.2 Explain in brief (any two)
- a) Thrombosis and write its pathogenesis.
 - b) Healing. Explain the process of healing.
 - c) Phagocytosis
- Q.3 Attempt (any one)
- a) Define Neoplasm. Write 5 differences between Benign & Malignant tumor. Explain the different modes of tumor metastasis.
 - b) Define a Culture medium. What are the qualities of an ideal culture medium. Classify the culture medias with example.

PAPER III (TECHNIQUES AND PROCEDURE IN CATH. LAB.)

- Q.1. Write short notes on [any Five] :
- a] Defibrillator
 - b] Indications for diagnostic use of coronary catheterization
 - c] Balloon septostomy
 - d] Cardiac Monitor
 - e] Ventricular Tachcardia
 - f] Femoral arteriography
- Q.2. Explain [any Two] :
- a] Necessary equipments in Cath. Lab.
 - b] Balloon Angioplasty Procedure
 - c] Types of stents.
- Q.3. Explain in detail the duties and responsibilities of Cath. Lab. Technicians.
- OR
- Explain in detail about the procedure for EP Study
- *****

INSTITUTE OF PARA MEDICAL TECHNOLOGY



R

ASSIGNMENT

FINAL EXAMINATION

DIPLOMA IN CATH. LAB. TECHNOLOGY

PAPER IV (ADMINISTRATION AND MANAGEMENT IN CATH. LAB.)

- Q.1. Write short notes on [any Five] :
- Active promotion of cost effective unit operations.
 - Septic Room
 - Cath. Lab. Supervision
 - Stock Management
 - Scrubbing room
 - Principles of Administration
- Q.2. Explain [any Two] :
- Duties and role of technical staff.
 - Maintenance of sterility in Cath. Lab.
 - Identifying and planning for developmental needs of the staff.
- Q.3. Explain in detail about the maintenance of all major and minor equipments used in Cath. Lab.

OR

Explain with the help of a diagrammatic sketch the organisation of the Cath. Lab. in detail.

PAPER V (ELECTROCARDIOGRAPHY)

- Q.1. Write short notes on (Any Five)
- Cardiac Monitor
 - Tread mill Test
 - ECG features of WPW Syndrome
 - Echocardiography
 - Measurement of Blood Pressure
 - Chest Leads
- Q.2. Explain (Any Two)
- Normal conducting system of Heart
 - ECG findings in MI
 - ECG findings in Arrhythmias
- Q.3. Explain in detail Normal P Q R S T waves and PR interval & S T segment

OR

Explain in detail 12 Leads of ECG



ASSIGNMENT

FINAL EXAMINATION

DIPLOMA IN DIALYSIS TECHNOLOGY

PAPER I (GENERAL ANATOMY AND PHYSIOLOGY)

Q.1 **Shorts notes [any Five]**

- a] Peristaltic movement
- b] Meninges of brain
- c] Kidney- structure and function
- d] Facial Bones-structure and location
- e] Larynx- structure and function
- f] Villi- structure and function

Q2. **Explain [any Two]**

- a] Formation, function & Circulation of CSF
- b] Process of Respiration
- c] Route of heart conduction in detail.

Q3. Write in detail about systemic circulation of heart alongwith its structure, function & location?

OR

Write in detail about structure, function, secretions & location of stomach & Small intestine in digestive system with well labelled diagrams ?

PAPER II (MICROBIOLOGY AND PATHOLOGY)

Q.1 **Shorts notes on [any Five] :-**

- a] Leukaemia- causes
- b] Classification of tumour
- c] Metabolism
- d] Methods of waste management of laboratory
- e] Gram +ve bacteria
- f] Cross Infection

Q2. **Explain [any Two] :-**

- a] Mode of exit and transmission of diseases
- b] Types of Immunization
- c] Classify types of Anaemia according to their aetiology & morphology of cells

Q3. **Attempt any one in detail with appropriate diagram**

- a] Write in details about various methods of dry and moist heat type of sterilization. Illustrate your answers with the help of suitable diagram.
- b] Write in details about cell damage, defense mechanism and the process of cell repair.

PAPER III (TECHNIQUES AND PROCEDURES IN DIALYSIS LAB.)

Q.1 **Shorts notes on [any Five]:-**

- a] Hemodialysis procedure
- b] A-V Fistula importance
- c] Purpose of hemodialysis
- d] Hemodialyzer solution
- e] Thrombosis
- f] Catheter in the neck for hemodialysis

Q2. **Explain [any Two] :-**

- a] Procedure for Peritoneal Dialysis
- b] Risk factor for hemodialysis
- c] Parameter for consideration before hemodialysis

Q3. **Attempt any one detail**

- a] Types of dialysis and their comparison.
- b] Write in detail about the complications during the hemodialysis.

INSTITUTE OF PARA MEDICAL TECHNOLOGY



R

ASSIGNMENT

FINAL EXAMINATION

DIPLOMA IN DIALYSIS TECHNOLOGY

TIME : Three Hours MAX. MARKS : 100 ROLL NO. _____

NOTE: Attempt all questions. Internal choice is provided.

Donot write/ use Red Ink for writing answers.

Write only answers for ques.no.1 and 2.

PAPER IV (ADMINISTRATION AND MANAGEMENT IN DIALYSIS LAB.)

Q.1 Shorts notes on [any Five]:-

- a] Fluid Overload
- b] Dialysis Service Complex
- c] Non-Treatment area of patient
- d] Drugs, Medical Devices and Consumables
- e] Linen Management
- f] CSSD

Q2. Explain [any Two] :-

- a] Human Resource Requirement
- b] Record management and reporting
- c] Waste Management Services and Medical Gases

Q3. Attempt any one detail

- a] How should patients with hypertension and fluid overload be managed?
- b] What are the necessary tests requirement/ guideline before dialysis?

PAPER V (ELECTROCARDIOGRAPHY)

Q.1. Write short notes on [any Five]:

- a] ECG Paper
- b] ECG Machine Calibration
- c] Importance of earthing for ECG recording
- d] ECG Recording artefacts
- e] Paper speed during recording & its effect
- f] Calculation of Heart Rate by taking an example of ECG graph.

Q.2. Explain [any Two]:

- a] Cardiac Monitoring
- b] Structure and function of heart
- c] Recording of 12 lead routine ECG

Q3. Write about the significance and normal values for various waves and intervals recorded in an E.C.G.

OR

Explain with the help of an example about calculating electrical axis of an heart using lead I and III recording?

INSTITUTE OF PARA MEDICAL TECHNOLOGY

ASSIGNMENT

FIRST YEAR FINAL EXAMINATION

DIPLOMA IN PHYSIOTHERAPY ASSISTANT



R

PAPER I (ANATOMY & PHYSIOLOGY)

- Q.1 Short notes on [any Five]:-
- | | |
|---------------------|----------------------------------|
| a] Classify Muscles | b] Bony Joints |
| c] Lungs | d] Structure of heart |
| e] Patella | f] Route of contraction of heart |
- Q2. Explain [any Two] :-
- | | |
|--|---------------------------|
| a] Functions and constituents of blood | c] Process of Respiration |
| b] Function of Muscles | |
- Q3. Attempt any one detail with appropriate diagram
- | |
|--|
| a] Describe the structure of the shoulder joint alongwith scapula. |
| b] Describe the structure of the Pelvis in detail. |

PAPER II (PHYSICS AND PATHOLOGY)

- Q.1 Short notes on [any Six]:-
- | | | | |
|------------------|--------|--------------|---------|
| a] CT | b] IMT | c] IRR | d] TENS |
| e] Faraday's Law | f] IFT | g] Galvonism | |
- Q2. Explain [any Two] :-
- | | | |
|----------------|---------------|-------------------------|
| a] Wax therapy | b] Ultrasound | c] Short Wave Diathermy |
|----------------|---------------|-------------------------|
- Q3. Attempt any one detail with appropriate diagram
- | |
|--|
| a] Draw a labeled diagram to explain the pulley system required for various physiotherapeutic exercises. |
| b] Write in detail about cryotherapy. |

PAPER III (PSYCHOLOGY, NURSING AND MEDICAL ETHICS)

- Q.1 Short notes on [any Six]:-
- | | | |
|----------------------|--------------------------|------------------|
| a] Stress | b] Emotional Development | c] Psychometry |
| d] Patient Behaviour | e] Process of nursing | f] Social Ethics |
| g] General Hygiene | | |
- Q2. Explain [any Two] :-
- | |
|---|
| a] Pre and Post operative caree of physiotherapy patients |
| b] Care of skin and preventing bedsores. |
| c] Motivation techniques of Patients. |
- Q3. Attempt any one detail with appropriate diagram
- | |
|---|
| a] Write a detail note on duties of the physiotherapy assistants. |
| b] Write in detail about splitting and plaster techniques. |

PAPER IV (PHYSIOTHERAPY AND REHABILITATION)

- Q.1 Short notes on [any Six]:-
- | | |
|------------------------------------|------------------------|
| a] Physiological effect of Massage | b] Types of Exercise |
| c] Therapeutic effect of Massage | d] Types of Stretching |
| e] Contraindication of Massage | f] Types of postures |
| g] Indication for Massage | |
- Q2. Explain [any Two] :-
- | |
|-------------------------------------|
| a] Lymphatic drainage |
| b] Spinal Cord and Vertebral Column |
| c] Systemic Circulatory System |
- Q3. Describe in detail about various rehabilitation exercises to be performed and indicate the conditions.

INSTITUTE OF PARA MEDICAL TECHNOLOGY



R

ASSIGNMENT

SECOND YEAR FINAL EXAMINATION

DIPLOMA IN PHYSIOTHERAPY ASSISTANT

PAPER I (PHYSIOTHERAPY IN GENERAL MEDICINE CONDITIONS)

- Q.1 Shorts notes on [any Six]:-
a) Quadriplegia b) Stroke c) haemaphysalis d) Bell's Palsy
e) Cystic Cavities f) Tabes Dorsalis g) Dermatomyositis
- Q2. Explain [any Two] :-
a) Parkinsonism b) Alzheimer's disease c) Syringomyelia
- Q3. Attempt in detail
Describe about types of myopathies & their management by physiotherapy.

PAPER II (PHYSIOTHERAPY IN SURGICAL CONDITIONS)

- Q.1 Shorts notes on [any Five]:-
a) Ischaemia b) Pneumothorax c) Forced Expiration Technique
d) Speech Therapy e) AV Nodal function f) Diaphragmatic breathing
- Q2. Explain [any Two] :-
a) Closed and Open drainage b) Cardio-Pulmonary Bypass Surgery
c) Primary and Accessory Ventilatory muscle & function.
- Q3. Attempt
Explain in detail about assessment of chest function by physiotherapy.

PAPER III (PHYSIOTHERAPY IN OBSTETRICS, GYNAE., PSYCHIATRY CONDITIONS)

- Q.1 Shorts notes on [any Six]:-
a. Diastasis rectos abdominis b. Symphysis pubis dysfunction
c. Nerve compression syndrome d. Puerperium e. Tens in labor
f. Antenatal classes g. Post natal classes
- Q2. Explain [any Two] :-
a. Stages of labor b. Types of exercise (In Pregnancy) c. Menopause
- Q3. Attempt any ONE with appropriate diagram
a. Mental retardation -Cause Clinical Feature, Treatment
b. Physiotherapy - Types/ Complication/ Benefits

PAPER IV (RADIOLOGY AND PHARMACOLOGY)

- Q1. Shorts notes on [any SIX]:-
a) Adverse drug effect b) Trans lateral views
c) Structure of X-Ray film d) Balanced Diet e) Xylocaine
f) Functions of Fat g) Vitamin B deficiency
- Q2. Explain [any TWO]:-
a) Faults in the radiograph b) Drugs acting on CNS
c) Function, deficiency diseases and prevention of Vitamin D.
- Q3. a) What is an X-ray film. Write about its composition and various X-ray films according to ANSI. Write in detail about Intraoral films?
OR
b) Explain in detail about various x-ray view to be performed in case of cervical bone injury in an emergency and its management?

PAPER V (ORTHOPAEDICS AND GERIATICS)

- Q.1 Shorts notes on [any Six]:-
a. Kyphosis b. Scoliosis c. Frozen shoulder d. LBA
e. O.A. f. R.A g. Osteoporosis
- Q2. Explain [any Two] :-
a. Orthopedic splints & Appliance b. Foot deformities
c. Congenital abnormalities of child
- Q3. Attempt with any ONE appropriate diagram
a. Obesity management & complication
b. Spinal cord injury & its complication, Treatment, programme.

INSTITUTE OF PARA MEDICAL TECHNOLOGY



R

ASSIGNMENT

DIPLOMA IN ASSISTANT NURSING & MIDWIFERY

Final Year-Asstt. Nurse & Midwife

PAPER I (SCIENCE)

- Q.1. Write short notes on [any Six] :
- a) Endocrine glands
 - b) Properties of muscles
 - c) Preservation of food
 - d) Mal nutrition
 - e) Food poisoning
 - f) Round Worm
 - g) First-aid management of fracture
- Q.2. Explain [any Two] :
- a) Structure and function of heart
 - b) Types of bones & bony joints
 - c) Body temperature regulation
- Q.3. Write in detail [any One] :
- Explain about acid and alkali burns alongwith their first aid management.
- OR
- Explain about Renal excretory system alongwith structure of nephron.

PAPER I -Practical (Science) Part - Two

Attempt any two questions

- P.1. Prepare a diet chart for the diabetic and Cardiac patient.
- P.2. Prepare a slide of blood for bacteriological examination.
- P.3. Explain the effect of cooking on the nutritional value.

PAPER II (FUNDAMENTALS OF NURSING - I)

- Q.1. Write short notes on [any Six] : [7x6=42]
- a) Physical examination of the patient
 - b) Ambulatory care of the patient
 - c) Taking history of the sick patient
 - d) Chemical examination of urine
 - e) Assisting with intravenous injections and infusions.
 - f) Basic nursing for patient in shock
 - g) First aid in case of fracture
- Q.2. Explain [any Two] :
- a) Basic Techniques- dusting washing, disinfecting and sterilizing.
 - b) Hand washing, scrubbing for surgical practice dressing cuts
 - c) Types of wound and its care in emergency
- Q.3. Explain about disposal of waste, garbage & Safety factors in the environment.

PAPER II -Practical (FUNDAMENTALS OF NURSING - I)Part - Two

Attempt any two questions

- P.1. Testing of Urine sugar by benedicts reagent.
- P.2. Emergency treatment in case of snake bite.
- P.3. Wound dressing in emergency as first aid.

PAPER III (FUNDAMENTALS OF NURSING - II)

- Q.1. Write short notes on [any Six] :
- a) Sewage disposal
 - b) Prevention of Communicable Diseases
 - c) Care of the handicapped
 - d) Maternal health care
 - e) Safe water supply
 - f) Factors effecting community health
 - g) Care of the Sick- home nursing aspects
- Q.2. Explain [any Two] :
- a) Prenatal factors affecting growth & development of child
 - b) Examination of the newborn; neonatal reflexes
 - c) Role of dais/local birth attendants
- Q.3. Write in detail about protection of Child's Health- Immunization schedule.

PAPER III -Practical (FUNDAMENTALS OF NURSING - II)Part - Two

Attempt any two questions

- P.1. Home Visiting and domiciliary health service organizing home visits.
- P.2. Leadership patterns in community health facilities available in community.
- P.3. Role of health worker in school health programme as coordinator.

INSTITUTE OF PARA MEDICAL TECHNOLOGY



R

ASSIGNMENT

DIPLOMA IN ASSISTANT NURSING & MIDWIFERY

Final Year-Asstt. Nurse & Midwife

PAPER IV (COMMUNITY HEALTH NURSING - I)

Q.1. Write short notes on [any Six] : [7x6=42]

- a) Diagnosis of pregnancy ; signs and symptoms.
- b) Abortion
- c) Care of breasts & initiation of breast feeding
- d) Cancer cervix
- e) Management of Vaginal bleeding in pregnancy
- f) Ectopic Pregnancy
- g) Motivating eligible couples

Q.2. Explain [any Two] :

- a) Disposal of soiled linen, clothes care and comfort of mother
- b) Development and function of placenta.
- c) Family planning education benefit of adopting family planning methods.

Q.3. Write in detail about Drugs used in Obstetrics - Mode of action, normal dose, indication, and side effects.

PAPER IV -Practical (COMMUNITY HEALTH NURSING - I)Part - Two

Attempt any two questions

- P.1. Family Planning Methods (emphasis on Contraceptives for women).
- P.2. Care of baby cord care; eye care; newborn examination.
- P.3. Identifying complications and abnormalities of the postpartum period.

PAPER V (COMMUNITY HEALTH NURSING - II)

Q.1. Write short notes on [any Six] :

- a) Child Nutrition- breast feeding
- b) Dietary modifications in Diabetes
- c) Different Audio-Visual aids
- d) Formal and informal communication
- e) Verbal and Non-verbal communications
- f) Mass communication
- g) Low cost graphic aids

Q.2. Explain [any Two] :

- a) Hygienic aspects of handling and preparing food for infants and children
- b) Basic skills for communication; human relations skills
- c) Audio visual aids in health education programmes

Q.3. Write in detail about (Any One)

- a) Write about Dietary requirements during infancy and preschool phase.
- b) Write about methods of cooking related to preservation of nutrients.

PAPER V -Practical (COMMUNITY HEALTH NURSING - II)Part - Two

Attempt any two questions

- P.1. Utilizing traditional vehicles of communication in rural areas.
- P.2. Adulteration practices harmful to health; implications.
- P.3. Approaches Used in Health Education

PAPER VI (COMMUNITY HEALTH NURSING - III)

Q.1. Write short notes on [any Five] :

- a) Effects of protein deficiency
- b) Functions and sources of fat
- c) Pasteurisation of the milk
- d) Sources of protein & carbohydrate
- e) Hand washing & personal Hygiene
- f) Anaemia prophylaxis program

Q.2. Explain [any Two] :

- a) Life cycle of common mosquitoes
- b) Role of community health nurse in nutrition
- c) Protection and control measures against diseases caused by mosquito bites.

Q.3. Explain the ill effects caused by hookworm in human beings, prevention and its life cycle in detail.

PAPER VI -Practical (COMMUNITY HEALTH NURSING - III)Part - Two

Attempt any two questions

- Q.1. Write about Preparation of the sick unit/room at home,
- Q.2. Explain General measure for prevention and control of communicable diseases.
- Q.3. Write about Hygiene of the patient's bath, elimination, feeding, activity.



ASSIGNMENT

FIRST YEAR FINAL EXAMINATION

DIPLOMA IN MULTIPURPOSE HEALTH WORKER

PAPER I (ANATOMY AND PHYSIOLOGY)

Q.1 Shorts notes on [any Five]:-

- | | |
|---------------------------|-----------------------------|
| a] Types of bony joints | b] Bones of upper extremity |
| c] Process of Respiration | d] Endocrine glands |
| e] Gall bladder | f] Lungs volume & capacity |

Q.2 Explain [any Two] :-

- | | |
|--------------------------------------|---|
| a] Pulmonary circulation | b] Structure and normal route of contraction of heart |
| c] Formation and excretion of Urine. | |

Q.3. Attempt any one detail with appropriate diagram

- a] Write in detail about digestion, absorption and assimilation of food in an adult.
b] Write in detail about Male reproductive system with appropriate diagram.

PAPER I -Practical (ANATOMY & PHYSIOLOGY) Part - Two

- Q.1. Identify various types of bony joints in human body. Write about their function.
Q.2. Explain the process of heart contraction. Measure the pulse rate, pulse pressure and BP.

PAPER II (COMMUNITY HEALTH NURSING)

Q.1 Shorts notes on [any Five]:-

- | | |
|---|---|
| a] Role of religion in community health | b] World Health Organization |
| c] Function of Indian Red Cross Society | d] Organization of health care system in rural area |
| e] Scope of community health nursing in India | f] Ways of data collection for births in community |

Q.2. Explain [any Two] :-

- | | |
|--|-------------------------------|
| a] Explain code of ethics for MPHWS | b] Problems of a school child |
| c] Primary health centre and its functions | |

Q.3. Attempt any one detail

- a] Why MPHWS would make home visit and what is the procedure for home visit?
b] What is the role of anganwadi worker? What are the responsibilities of anganwadi worker?

PAPER II -Practical (COMMUNITY HEALTH NURSING) Part - Two

- Q.1. Write about various types and use of Audio-Visual Aids.
Q.2. Explain the process of educating people for family planning.

PAPER III (HEALTH PROMOTION)

Q.1. Write short notes on [any Five] :

- | | |
|-----------------------|--------------------------------------|
| a] Balanced Diet | b] Prevention of water borne disease |
| c] Hazards of smoking | d] Role of ventilation on health |
| e] Air Pollution | f] Forms of Medication |

Q.2. Explain [any Two] :

- a] Diseases caused by protein energy malnutrition and their treatment
b] Functions, source and requirement of calcium and diseases caused by it
c] Role of environmental sanitation for healthy living

[12.5x2=25]

Q.3. Explain Classification of food and its nutritive value in detail.

OR

Explain food adulteration of different food stuffs in details with appropriate examples.

PAPER III -Practical (HEALTH PROMOTION) Part - Two

- Q.1. Write about special diet for individual for various age groups.
Q.2. Explain various methods of excreta disposal.



ASSIGNMENT

FIRST YEAR FINAL EXAMINATION

DIPLOMA IN MULTIPURPOSE HEALTH WORKER

PAPER IV (DISEASE PREVENTION AND HEALTH RESTORATION)

Q.1. Short notes on [any Five] :-

- | | |
|---|------------------------|
| a] Sign, symptoms and management of measles | b] Management of Fever |
| c] Management of Rabies | d] Hot air oven |
| e] Notification of disease | f] Types of vaccine |

Q2. Explain [any Two] :-

- | | |
|---|---------------------------|
| a] Life cycle of Malarial Parasites | b] Life cycle of Tapeworm |
| c] Control and Eradication methods of a disease | |

Q.3. Attempt any one in detail

- a] Explain in detail various methods of disinfection and sterilization.
b] Explain in detail about signs, symptoms, care and prevention of typhoid fever.

PAPER IV -Practical (DISEASE PREVENTION AND HEALTH RESTORATION)Part - Two

Q.1. Write about first aid treatment and its management in case of Urine retention in rural and urban area.

Q.2. Explain the care and prevention from spreading of the tuberculosis.

PAPER V (PRIMARY MEDICAL CARE AND FIRST AID)

Q.1 Write signs, symptoms and first aid on [any Five]:-

- | | |
|------------------------------------|--|
| a] First aid in case of snake bite | b] First aid for insect bite |
| c] First aid in case of drowning | d] First aid for foreign bodies |
| e] Storage and Care of drugs | f] Symptoms and first aid in case of colley's fracture |

Q2. Explain [any Two] :-

- a] Types of burns and first aid for burns
b] Types of fracture and first aid in case of fracture
c] Common emergency drugs and their uses

Q3. Attempt any one in detail

- a] Explain causes, risk factors, types of bleeding and first aid in case of head injury.
b] Explain Causes, symptoms and first aid for heat stroke patients.

PAPER V -Practical (PRIMARY MEDICAL CARE AND FIRST AID) Part - Two

Q.1. Write about first aid treatment and its management in case of severe burns.

Q.2. Write about first aid treatment and its management in case of cardio-respiratory arrest in rural area.

PAPER VI (CHILD HEALTH NURSING)

Q.1 Short notes on [any Five]:-

- | | |
|-----------------------|-------------------------------------|
| a] Birth Registration | b] Care of pregnant women at home |
| c] Angamwadi | d] Hookworm infestation in children |
| e] Measles | f] Assessment of growth of infants |

Q2. Explain [any Two] :-

- a] Management and care for indigestion in infants
b] Child vaccination schedule
c] Care of mother during first year after delivery

Q3. Attempt any one detail

- a] Discuss in detail about good cleanliness and good eating habits in childrens.
b] Explain diseases caused by protein energy malnutrition in childrens.

PAPER VI -Practical (CHILD HEALTH NURSING) Part - Two

Q.1. Write about care of adolscent girl during Menstruation and caring of menstrual hygiene

Q.2. Write about Physical growth during adolescence .

INSTITUTE OF PARA MEDICAL TECHNOLOGY



R

ASSIGNMENT

FINAL EXAMINATION

DIPLOMA IN SANITARY INSPECTOR

PAPER I (BASIC HEALTH SCIENCES)

- Q.1. Write short notes on [any Six] :
- | | |
|-------------------------------------|-------------------------|
| a] Laws of Refraction | b] Endocrine glands |
| c] Hook Worm | d] Round Worm |
| e] First aid management of fracture | f] Process of Digestion |
| g] Plasmodium Vivax and Falciparum | |
- Q.2. Explain [any Two] :
- Biological modes of transmission of disease
 - Structure and function of heart.
 - Routes of drug administration
- Q.3. Explain in detail about acid and alkali burns alongwith their first aid management.

OR

Explain in detail about the structure and function of kidney. Mention about the role of adrenal gland.

PAPER II (ENVIRONMENTAL HEALTH EDUCATION)

- Q.1. Write short notes on [any Six] :
- | | |
|--|---|
| a] Properties of air | b] Air ventilators |
| c] Effect of atmospheric air on health | d] Treatment for Heat stroke or sunstroke |
| e] Cold stress | |
| f] Reasons for excessive moisture present in soil. | |
| g] Effect of high decible sound on man | |
- Q.2. Explain [any Two] :
- Purification of air by nature
 - Effect of radiation on man and its protection
 - Slum clearance and improvement
- Q.3. Explain in detail about Causes of air impurity and the effect of bearthing impure air on health.

OR

Explain in detail about construction and working of a septic tank, where proper sewage system are not available.

INSTITUTE OF PARA MEDICAL TECHNOLOGY



R

ASSIGNMENT

FINAL EXAMINATION

DIPLOMA IN SANITARY INSPECTOR

PAPER III (NUTRITION AND FOOD SANITATION)

- Q.1. Write short notes on [any Six] :
- Sanitation measures for food handlers.
 - Parboiling
 - Benefits of breast feeding
 - Control of malnutrition
 - ICDS
 - National anaemia prophylaxis program
 - Weaning
- Q.2. Explain [any Two] :
- Methods of pasteurisation and test to check it.
 - PFM in detail.
 - Simple methods of detection of adulterants
- Q.3. Explain nutritional assessment in detail and give the indicators for malnutrition.

OR

Define Malnutrition. Classify & give stages and epidemiological factors associated with it in detail.

PAPER IV (ENVIRONMENTAL SANITATION)

- Q.1. Write short notes on [any Six] :
- Principles of treating Asphyxia
 - First aid in electrical injuries
 - Methods of artificial respiration
 - Treatment for Faint
 - Water sources in India
 - Pot method of Chlorination of water
 - Slow sand filters for water
- Q.2. Explain [any Two] :
- Structure and working of leach pit latrines
 - Structure and working of septic tank
 - Excreta disposal in fairs and festivals
- Q.3. Explain in detail about construction and working of Biogas Plant.

OR

Explain in detail about sanitary landfills (Compositing).
