COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN RESPIRATORY THERAPY TECHNICIAN COURSE PAPER I

Cardio Pulmonary Anatomy, Physiology & Medical Terminology

- 1. Describe the Anatomy of Broncho Pulmonary Segments
- 2. Describe the Anatomy of Conducting System of Heart
- 3. Describe the Anatomy of Larynx
- 4. What are the fat soluble vitamins? Write the sources, daily requirement and deficiency manifestations of Vitamin A
- 5. Write about Blood Grouping and Typing
- 6. Name the Thyroid Hormones and describe the functions of thyroid hormones
- 7. Describe the methods of sterilization
- 8. Define Biostatistics and mention its uses of Biostatistics
- 9. Fresh Frozen Plasma
- 10. Assessment of Airway
- 11. Postural Drainage
- 12. Describe Intercostal drainage tube set.

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN RESPIRATORY THERAPY TECHNICIAN COURSE PAPER II

Patient Contact Technique & Anesthesiology

- 1. Describe the procedure of Nasal Endo Tracheal Intubation
- 2. Oxygen Concentrator
- 3. Describe different methods of Oxygen therapy
- 4. Venti Mask
- 5. Describe Pressure Support Ventilation
- 6. Describe Monitoring in ICU
- 7. Write about Capnogram and its importance in ICU
- 8. Describe about the drugs used for ICU Sedation
- 9. Supra Laryngeal Airway Devices
- 10. Double Lumen Endobronchial Tube
- 11. Importance of antiseptics in Anesthesiology
- 12. Describe any two of special types of Laryngoscopes

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN RESPIRATORY THERAPY TECHNICIAN COURSE PAPER III

Respiratory Therapy Science & Respiratory Practices

Time: 3hrs. Answer any **TEN** Questions

Total Marks:80

All Questions carry equal marks

Write the entire answer to a question at one place only but not in different stages

- 1. Care of COPD patient in ICU
- 2. Non Invasive Ventilation
- 3. Discuss about oxygen therapy
- Clinical features and management of Pneumothorax 4.
- 5. LMA (Laryngeal Mask Airway)
- Describe preoperative problems after General Anesthesia 6.
- 7. Percutaneous Tracheostomy
- 8. Care of the Endo Tracheal Tube in ICU
- 9. Nor Adrenaline
- 10. Cardio Pulmonary Resuscitation
- 11. Defibrillator
- 12. Explain browsing and downloading

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN OPHTHALMIC ASSISTANT COURSE

PAPER I

Anatomy & Physiology of Eye

- Discuss in detail the UVEA
- 2. Draw the visual pathway and label it.
- 3. Draw the structure of eyelid and label it.
- 4. Describe the actions of extra ocular muscles
- 5. Analyze the functions and clinical uses of pupil
- 6. What is angle of anterior chamber?
- 7. Describe formation and flow of tears
- 8. What are the types of Tonometry and their uses?
- 9. Retinal function tests
- 10. What are fat soluble vitamins? Write the sources, daily requirements and deficiency manifestations of Vitamin C
- 11. What are Pupillary Reflexes?
- 12. Write about mean, median and mode and write the uses of biostatistics.

D. Mult 9951891999

ANDHRA PRADESH PARAMEDICAL BOARD, HYDERABAD

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017

DIPLOMA IN OPHTHALMIC ASSISTANT COURSE

PAPER II

Health Education of Eye & Community Ophthalmology

Time: 3hrs.
Answer any **TEN** Questions

Total Marks:80 All Questions carry equal marks

Write the entire answer to a question at one place only but not in different stages

- 1. What is blindness? Write the causes of blindness
- 2. What are category of visual impairment?
- 3. What is primary, secondary, tertiary eye care?
- 4. What is eye bank and its functions?
- 5. How you screen children for eye diseases?
- 6. What are contraindications of eye donation?
- 7. Role of Vitamin A in blindness
- 8. What are low visual Aids?
- 9. What is computer vision syndrome?
- 10. What is Vision 2020?
- 11. What is NPCB (National Programme for Control of Blindness) and its functions?
- 12. Antiseptics types, properties and uses

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017

DIPLOMA IN OPHTHALMIC ASSISTANT COURSE PAPER III

Optics & Refraction

Time: 3hrs.
Answer any **TEN** Questions

Total Marks:80
All Questions carry equal marks

Write the entire answer to a question at one place only but not in different stages

- 1. Describe the methods of Retinoscopy
- 2. Prism Bar Test
- 3. Strum Conoid
- 4. Subjective verification of Refraction
- 5. Keratomer and its functions
- 6. What is Ametropia?
- 7. Describe Astigmatic Fan
- 8. Write about browsing and downloading
- 9. Far sight and its management
- 10. Describe Cross Cylinder
- 11. Mydriatics in eye O.P
- 12. Discuss the role of an Ophthalmic Assistant in Eye camps

Aside .

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN ANESTHESIA TECHNICIAN COURSE

PAPER I

Anesthesiology

- 1. Describe the monitoring during General Anesthesia
- 2. Describe the anatomy of Larynx
- 3. How do you assist during Caesarean section?
- 4. Write about your checklist before starting any surgery
- 5. How do you arrange and assist for Spinal Anaesthesia?
- 6. Describe central gas pipeline
- 7. What are water soluble vitamins? Write sources, daily requirement, deficiency manifestations of Vitamin D
- 8. Write about Sympathetic Nervous system
- 9. Define Biostatistics. Write about mean, median and mode
- 10. Importance of Preanesthetic check up
- 11. Describe post Anesthetic Management after general Anaesthesia in the ward
- 12. Anatomy of Brachial Plexus

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN ANESTHESIA TECHNICIAN COURSE

PAPER II

Pharmacology & Equipment

- 1. Armoured Endotracheal Tube
- 2. Laryngoscope
- 3. End Tidal Carbon dioxide (ETCO₂) Monitoring
- 4. Sterilization of Anesthetic devices
- 5. Contraindications and side effects of diuretics
- 6. Halothane
- 7. How do you set up and assist for placement of CVP line?
- 8. Vecuronium
- 9. Neostigmine.
- 10. Double Lumen Endobronchial tube
- 11. Fentanyl.
- 12. Laryngeal Mask Airway

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN ANESTHESIA TECHNICIAN COURSE

PAPER III

Cardio Vascular Physiology

- 1. SIMV (Synchronized Intermittent Mandatory Ventilation)
- 2. Physiotherapy in ICU
- 3. Postoperative Monitoring
- 4. Describe your role in Post Anesthesia Care Unit (PACU)
- 5. ABG (Arterial Blood Gas) analysis
- 6. What is Defibrillator? How do you use it?
- 7. Describe the care of a patient with Epidural infusion
- 8. Describe management of Nutrition in ICU
- 9. Types of Communication. What are the barriers of communication?
- 10. Prone Ventilation
- 11. How do you arrange for Bronchoscopy?
- 12. Describe General care of the patients



COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017

DIPLOMA IN MEDICAL STERILIZATION MANAGEMENT AND OPERATION THEATRE TECHNICIAN COURSE

PAPER I

Anatomy, Physiology, Pathology & Microbiology

- 1. Describe the cleaning of Operation Theatre
- 2. Describe the Fumigation of Operation Theatre
- 3. Describe the various Sterilization methods of Anaesthesia Equipment
- 4. Describe the investigations done for surgeries
- 5. Liver Function Tests
- 6. Write about Hospital Acquired Infections
- 7. Blood components
- 8. Cross Matching
- 9. What is your role and how do you assist the Anesthesiologist in OT?
- 10. Write about your preoperative check list
- 11. Describe the Anatomy of Trachea
- 12. Describe the preoperative preparation of the Patient in your perspective

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017

DIPLOMA IN MEDICAL STERILIZATION MANAGEMENT AND OPERATION THEATRE TECHNICIAN COURSE

PAPER II

Physics, Chemistry, Pharmacology & Sources of Infection

- 1. Causes of Pressure Sore and their prevention
- 2. Soda lime
- 3. Suction Apparatus
- 4. Laryngoscope
- 5. Propofol
- 6. Precautions taken during Prone Position
- 7. Nitrous Oxide
- 8. Cardio Pulmonary Resuscitation
- 9. Write about your personal protection regarding Needle Prick Injuries
- 10. Hospital acquired infection
- 11. Vaporizers
- 12. Flow Meter Assembly

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017

DIPLOMA IN MEDICAL STERILIZATION MANAGEMENT AND OPERATION THEATRE TECHNICIAN COURSE

PAPER III

Bio Medical Sciences

- 1. Describe your role in preoperative period
- 2. Write about disposal of Tissues (Placenta, Limbs and Specimens)
- 3. Basic Life Support
- 4. Defibrillator
- 5. Importance of Hand Wash in ICU
- 6. Describe care of Endo Tracheal Tube in OT
- 7. Control of infection in ICU
- 8. How do you assist during placement of Arterial Line?
- 9. Write about types of communication
- 10. Pulse Oximeter
- 11. Biomedical waste disposal.
- 12. Name different alarms in Multi channel monitors and their importance

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN DARKROOM ASSISTANT COURSE

PAPER I

Radiation Hazards & Protection Measures

- 1. Describe the anatomy of Cardio Vascular System
- 2. Describe about radiation protection
- 3. Explain about Barium Swallow
- 4. Write about developer
- 5. Describe in detail about position and centering of Mastoid X-Ray.
- 6. Explain about Generator in X-Ray machine
- 7. Explain about digital X-Ray processing
- 8. Glucose Tolerance Test
- 9. Name special sense organs. Write the functions of skin
- 10. Construction of Dark Room
- 11. Protective measures while taking X-Ray to pregnant woman
- 12. Anode heel effect

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN DARKROOM ASSISTANT COURSE

PAPER II

Radiography Techniques & Radiographic Anatomy

- 1. Explain about image intensifier
- Construction of X-Ray Room under AERB (Atomic Energy Regulatory Board) guidelines
- 3. Role of Dark Room Assistant in Radiograph
- 4. Maintenance of X-Ray cassettes
- 5. Radiographic anatomy of Vertebral Column
- 6. Position of Skull Town's view and its uses
- 7. Bedside X-Ray in ICU
- 8. Describe about imaging of chest
- 9. Describe safety measures in Dark Room
- 10. Methods of sterilization by heat
- 11. Describe about fitters
- 12. Physical and microscopic examination of urine

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN DARKROOM ASSISTANT COURSE

PAPER III

Ultra Sound Imaging, Interventional Procedures & Angiography

- 1. Explain about principles of colour doppler ultrasound
- 2. Basic principles of C.T
- 3. Explain about DSA (Digital Subtraction Angiography)
- 4. Describe about X-Ray contrast agents and their reactions
- 5. Explain the importance of positioning in Radiography with examples
- 6. Interventional procedures with ultrasound
- 7. Differences between manual film processing and digital film processing.
- 8. Explain about patient preparation for doppler.
- 9. Explain various digital subtraction techniques.
- 10. Write the strategies in effective communication
- 11. Describe CT artifacts
- 12. What are the protocols in MRI for whole body?

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017

Diploma in Medical Lab Technician Course (DMLT) <u>PAPER I</u>

PATHOLOGY & BLOOD BANKING

Time: 3hrs.

Answer any TEN Questions

All Questions carry equal marks

Write the entire answer to a question at one place only but not in different stages

- 1. Define and classify Anemia. Write the characteristic features and etiology of Megaloblastic Anaemia.
- 2. What are the types and uses of Microtome?
- 3. What are Anticoagulants? Types and uses of Anticoagulants.
- 4. Write about collection of Semen for Analysis and its Physical and Microscopic Examination.
- 5. Pre-requisites of Blood Transfusion. Write about the complications of Mismatch Transfusion.
- 6. Red Cell Indices.
- 7. What are Cellular adaptations? Give examples for each.
- 8. What are the stains used in Cytology? Describe in detail about Pap stain.
- 9. Define Biostatistics and write the uses of Biostatistics.
- 10. Describe about the function and properties of Lysosomes.
- 11. Describe the structure and function of Kidney with a neat diagram.
- 12. Write the various Medico-legal procedures in maintaining records.

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 Diploma in Medical Lab Technician Course (DMLT)

PAPER II

MICROBIOLOGY & PARASITOLOGY

- 1. Write about Antiseptics and Disinfectants.
- 2. Write the method of cultivation of viruses in embryonated eggs.
- 3. Write briefly about Biochemical Waste Management in a Microbiology Laboratory.
- 4. Write the composition and preparation of staining reagents used in Microbiology.
- 5. Write the cultural characteristics, morphological and serological features of Staphylococcus.
- 6. Write about the classification of Helminthes. Write briefly about any one of them.
- 7. Describe the morphology and life cycle of Dracunculus medinensis
- 8. Write about safety measures used in Microbiology laboratory
- 9. Characteristic diagnostic tests for Tuberculosis.
- 10. Write about the composition, preparation and uses of Enriched Media in brief.
- 11. Describe the method of collection and microscopic examination of Sputum specimen.
- 12. Write about the common lab fungal contaminants.

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017

DIPLIMA IN MEDICAL LAB TECHNICIAN COURSE (DMLT) PAPER III

BIOCHEMISTRY & METABOLISM

- 1. Describe Bioenergetics.
- 2. Explain principle types and applications of Centrifugation.
- 3. Write about the principle and uses of Thyroid function tests.
- 4. Write about the types, uses and maintenance of Photoelectric Colorimeters.
- 5. Estimation of Blood Sugar by Ortho-Toluidine method.
- 6. Classification of Proteins.
- 7. Write the Biochemical Parameters for Urine Examination.
- 8. P^H definition and importance of P^H.
- Write about the Internal and External Quality Control of Laboratory in brief.
- 10. Describe the methods of blood urea estimation with principle.
- 11. Importance of communication skills.
- 12. Citric Acid Cycle.

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN PERFUSION TECHNICIAN COURSE

PAPER I

Anatomy, Physiology & Basics of Diagnostic Techniques

Time: 3hrs.

Answer any **TEN** Questions

All Questions carry equal marks

Write the entire answer to a question at one place only but not in different stages

- 1. Draw a diagram of the anatomy of the heart and label the parts.

 Describe briefly the anatomy of the heart. (4+4)
- 2. Draw a diagram of the normal left and right coronary artery systems and their branches and label. Describe briefly the anatomy of the normal coronary arteries. (4+4)
- 3. What are the parameters monitored in the CTVS ICU? Write a brief note on monitoring using pulse oximeter, temperature probe and ECG monitor?
- 4. Write the fat soluble vitamins. Write the sources, daily requirement and deficiency manifestations of Vitamin C
- 5. Draw a diagram of the respiratory system and label the parts. Describe briefly the physiology of gas exchange in the alveoli. (4+4)
- 6. Write short notes on a) Hemodynamic monitoring b) Hemostatic monitoring (4+4)
- 7. Mention various types of oxygenators. Write briefly about one of them (4+4)
- 8. Mention the types of blood pumps. What are the features of an ideal blood pump? Write briefly about centrifugal pump. (2+2+4)

Contd..2

- 9. What is angiography? Mention at least 3 uses of angiography for diagnostic purpose. Draw a diagram of the following coronary angiograms LAO caudal view of Left Coronary artery showing LMCA distal 50% stenosis involving bifurcation; AP Cranial view of the RCA showing mid RCA 80% stenosis.
- . Mention two important cardiac causes of acute chest pain from hours. Mention the ECG and Echo findings that we expect if the chest pain is due to coronary artery disease (2+6)
- 11. A 50 year patient has come with chest pain on walking up the stairs and relieved by resting for 5 min. from the past 4 months:
 - What is the possible diagnosis? Mention at least 4 risk factors for this disease. What is the role of TMT in diagnosing this disease? Mention four contraindications for TMT (1+2+3+2)
 - 12. What is defibrillation? Mention its uses. Describe the steps of defibrillation for a patient with Ventricular tachycardia not responding to drugs. BP is 80/60 and patient is looking very ill.

(2+2+4)

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017

DIPLOMA IN PERFUSION TECHNICIAN COURSE PAPER II

Patho Physiology, Pharmacology & Perfusion Technics

Time: 3hrs.

Answer any **TEN** Questions

All Questions carry equal marks

Write the entire answer to a question at one place only but not in different stages

- 1. What is "Adequacy of perfusion" during cardio-pulmonary bypass? What are the factors affecting this? What are the normal arterial flow rates used? (2+4+2)
- 2. Mention the important complications that can occur after cardio-pulmonary bypass. Write briefly on "post-perfusion syndrome" and neurological complications. (4+2+2)
- 3. Draw an explanatory diagram representing the cardio-pulmonary bypass circuit and label. Write briefly on venous cannulation and arterial cannulation methods. (4+3+1)
- 4. Write short notes on a) Vents in Cardiopulmonary bypass b) Tubing and connectors in CPB (4+4)
- 5. Mention the surgical procedures where cardio pulmonary bypass Used? Write briefly the steps in cardio-pulmonary bypass technique. (3+5)
- 6. Write a brief note on the following drugs in CTVS. (3+3+2) a) Heparin b) Protamine c) dobutamine
- 7. Write the differences between adult and pediatric perfusion techniques

Contd...2

- 8. What is "Minimally Invasive Cardiac Surgery? Mention where it is Use? Write briefly about the perfusion aspects of the technique. (2+2+4)
- 9. Write short notes on a)Ultrafiltration in open heart surgeryb) Hypothermia and clinical uses (4+4)
- 10. What is Pulsatile Cardio-pulmonary Bypass? Mention its principles and benefits. (2+6)
- 11. Write about antihypertensive drugs.
- 12. What are the effects of Cardio-pulmonary bypass on the lungs? What factors predispose to these effects? Mention the preventive methods used. (4+2+2)

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017

DIPLOMA IN PERFUSION TECHNICIAN COURSE PAPER III

Cardio Pulmonary Bypass and Other Connected Subjects

Time: 3hrs. Answer any **TEN** Questions

Total Marks:80

All Questions carry equal marks Write the entire answer to a question at one place only but not in different stages

- Mention the common cardiac surgeries done using 1. cardiopulmonary bypass. Mention the principles of post-operative monitoring in these patients. (4+4)
- 2. Mention the important equipments (mention at least four) that must be available in a CTVS (Cardiothoracic & Vascular Surgery) Intensive Care Unit. Briefly describe what are they used for.

(4+4)

3. Write short notes on:

(4+4)

- a) Standardization in ECG recording
- b) Damping in pressure monitoring
- Explain about Quality Control and Quality Assurance. 4.
- What is the proper Endotracheal tube placement mark for men and 5. women? Mention the artificial airway problems that can happen. Write how to manage/rectify any two of them. (2+3+3)
- What are the duties of a perfusion technician in the CTVS OT and 6. in the CTVS ICU? Write a brief note on patient confidentiality (3+3+2)

- 7. a) Write a brief notes on Informed Consent (4+4) b) Write a brief description of how to perform CPR?
- 8. Write about barriers of communication and how you will overcome them?
- 9. Write very short notes on

(4+4)

- a) ECMO
- b) Infection control in CTVS
- 10. Write very short notes on

(4+4)

- a) Pre-operative preparation of patient for cardio-pulmonary bypass
- b) Hypotension during CPB
- 11. Mention briefly the complications that can happen when initiating bypass. Write briefly on the process of terminating Bypass machine. (4+4)
- 12. Write short notes on
 - a) Browsing and downloading
 - b) Power point presentation

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017

DIPLOMA IN DIALYSIS TECHNICIAN COURSE PAPER I

Anatomy, Physiology & Infections

Time: 3hrs.

Answer any **TEN** Questions

All Questions carry equal marks

Write the entire answer to a question at one place only but not in different stages

- 1. What are the functions of kidneys?
- 2. Explain blood clotting mechanism.
- 3. Draw the diagram of Glomerulus and label its constituents
- 4. Name the thyroid hormones and write the functions of thyroid hormones briefly
- 5. Draw the diagram of vascular tree in the body and label major blood vessels
- 6. What are the components of blood and mention function of each component?
- 7. Mention investigations routinely performed in kidney patients and write their normal values.
- 8. What are water soluble vitamins? Write the sources, daily requirement and deficiency manifestations of Vitamin D
- 9. Explain the laboratory tests to be conducted to a patient before dialysis.
- 10. What are various parts of digestive system and mention functions \mathcal{I} of each one?

Contd..2

- 11. Write about mean, median and mode and the importance of Biostatistics in hospitals
- 12. What are carbohydrates and proteins and mention nutritive value and biological importance of various carbohydrates and proteins?

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN DIALYSIS TECHNICIAN COURSE PAPER II

Pharmacology, Pathology & Dialysis Management

- 1. Explain the value of microscopic examination of urine
- 2. What are the types of dialysis?
- 3. Describe about various antiseptic measures in dialysis unit
- 4. Briefly write regarding anticoagulation during hemodialysis
- 5. Write some of the drugs used during the procedure of hemodialysis and their dosage and indications.
- 6. What are the components of water treatment plant for hemodialysis?
- 7. Write various antihypertensive drugs used in CKD patients
- 8. What are various types membranes used in hemodialysers, write regarding benefits and pitfalls of each?
- 9. Write Arterio Venous Fistula (AVF) for hemodialysis
- 10. What are various types of vascular access for hemodialysis?
- 11. What are the complications of peritoneal dialysis?
- 12. What are the contraindications of hemodialysis?

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN DIALYSIS TECHNICIAN COURSE PAPER III

Dialysis Techniques & Diseases of kidney

- 1. What is acute renal failure? What are its causes?
- 2. What are the indications for dialysis in acute and chronic renal failure?
- 3. Importance of communication skills
- 4. What is plasmapheresis? Write few indications.
- 5. What is CRRT (Continuous Renal Replacement Therapy)? What are the indications of CRRT?
- 6. What is SLED?
- 7. What are the common renal diseases leading to End stage renal disease in India? Explain briefly regarding each of them.
- 8. What is priming of hemodialysis and write briefly about anti septic precautions during priming?
- 9. What is formalin reaction during hemodialysis? How do you manage the complication?
- 10. What is residual bundle volume and its importance in reusing dialyzer?
- 11. Write disinfection of hemodialysis machine
- 12. What is dry weight and how do you assess it in hemodialysis patients?

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017

DIPLOMA IN RADIOTHERAPY TECHNICIAN COURSE PAPER I

Anatomy, Physiology & Pathology

Time: 3hrs.

Total Marks:80

Answer any **TEN** Questions

All Questions carry equal marks

Write the entire answer to a question at one place only but not in different stages

- 1. Write about anatomy, lymphatic drainage of Tongue and stage of Tongue Cancer.
- 2. Write about anatomy and lymphatic drainage of Prostate and classify Prostate Tumors.
- 3. Classify the types of malignancies based on their tissues of origin.
- 4. Discuss in brief various types of biopsies.
- 5. Classify Ionizing Radiations. Describe in brief each type.
- 6. What are X-Ray Generators? Write about a)Linearaccelerator b)Cyclotron.
- 7. Discuss the mechanism, advantages and disadvantages of Film Badge and TLD.
- 8. Describe in a Table, the properties, uses, advantages and disadvantages of Radium-226, Cobalt-60 and Caesium-137.
- 9. Write about the functions of WBC and platelets and how they are affected in Chemotherapy?
- 10. Define various radiation units. Write about exposure, absorbed dose and activity.
- 11. Discuss the Anode and Cathode structures of diagnostic and therapy X-Ray Tubes.
- 12. Write about the types of Statistical Data Display.

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017

DIPLOMA IN RADIOTHERAPY TECHNICIAN COURSE PAPER III

Radiation Therapy Physics, Radiation Hazards & Protection

Time: 3hrs.

Answer any **TEN** Questions

All Questions carry equal marks

Write the entire answer to a question at one place only but not in different stages

- Write about the ideal Radiotherapy Techniques for Ca. Breast after Lumpectomy, Simple Mastectomy and Radical Mastectomy.
- 2. Discuss the advantages and disadvantages of preoperative and postoperative Radiotherapy.
- 3. Write about the Dose dependent effects of Accidental Radiation Exposure.
- 4. How do you prevent Breast Cancer? Write about the screening methods to detect Breast Cancer.
- 5. Quality Assurance of Linear Accelerator.
- 6. How do you manage a spill of unsealed Radioactive Source in a Hospital? What are the Regulatory Requirements?
- 7. Write about Acute and Delayed Complications of Radiotherapy in Pelvic Malignancies.
- 8. Write about ALARA. What are the prescribed limits of Radiation Doses to various populations and to Different Organs?
- Write about the critical care equipment required in a cancer hospital. Describe the procedure of Cardio Pulmonary Resuscitation (CPR).

Contd....2

- Describe the significance of patient immobilization in Radiotherapy and describe various methods.
- 11. Cell cycle and Radiosensitivity
- 12. Write the strategies in effective communication

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017

DIPLOMA IN RADIOTHERAPY TECHNICIAN COURSE PAPER II

General Physics, Radiography Techniques & Medical Imaging

- Describe the principles of working of CT Scan, MRI and PET Scan.
 Discuss their advantages and uses in patient care.
- 2. Describe briefly a) Oxygen effect b) High LET Radiation.
- 3. What are Isodose Curves? Describe the methods of modifying Isodose Curves.
- 4. Describe various methods of Brachy therapy in treatment of cancer.
- 5. What are the various advanced Radiotherapy Techniques? Describe various methods of Gating.
- 6. Describe various types of Collimators and their advantages.
- 7. How do you go about planning of Radiotherapy for a patient with Ca. Prostate?
- 8. What are methods of administering Chemotherapy? Discuss the use of different methods.
- 9. Discuss methods of sterilization you would use in Radiotherapy Treatment Room.
- 10. Write about a) Simulation b) Beam verification.
- 11. Discuss Whole Blood Vs Component Transfusion.
- 12. Write about Hospital Acquired Infections

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017

DIPLOMA IN MPHA (MALE) COURSE PAPER I

Health Problems

- 1. What is balanced diet? What are the factors do you consider while planning?
- 2. Role of MPHA in First Aid and Emergency Care
- 3. How to do Health Education for Ante-Natal Women?
- 4. Give the definition for Disinfection. Write in detail about three Antiseptics.
- 5. What are fat soluble vitamins? Explain the sources, daily requirement and deficiency manifestations of Vitamin D
- 6. What are different problems of old Age? How to prevent them.
- 7. What are different Essential Drugs? Write in brief about any two Essential Drugs.
- 8. What is Drug and Alcohol Abuse? Write in brief about them.
- What are the different animal bites? Write in detail about bites of the hand.
- 10. Mention the organs of Respiratory system and describe any one of them in detail.
- 11. What are the common occupational skin diseases? How to prevent them?
- 12. Name four Communicable Diseases. How to control infection in Tuberculosis?

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN MPHA (MALE) COURSE

PAPER II

Health Education & Public Health Administration

- 1. What are different components of Comprehensive School Health Programme?
- 2. What are the principles of organizing Health Care at Hospitals?
- 3. What are different Cultural Patterns of Society Influencing Family Health Care?
- 4. What is the Health Education you give for post-natal women?
- 5. Mention six National Health Programmes. Write about any one of them.
- 6. What is the Role of "WHO" in the field of Health?
- 7. Write in detail about Universal Immunization Programme.
- 8. Write in detail about health services at Sub Center level.
- 9. What is "AYUSH"? Write about Ayurvedic System of Medicine in Health Care of Community?
- Write in detail about ethics and behaviour of health workers
- 11. What are different medicinal plants? What is the role of "Tulasi" in Health?
- 12. Write about introduction and importance of "Nature Cure" in Health.

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017

DIPLOMA IN MPHA (MALE) COURSE PAPER III

Environmental Sanitation & Hygiene

Time: 3hrs.

Answer any **TEN** Questions

All Questions carry equal marks

Write the entire answer to a question at one place only but not in different stages

- 1. What is the importance of ventilation? What do you mean by cross-ventilation?
- 2. What are the indications of Air pollution? How to prevent Air pollution.
- 3. What is safe water? What are the steps of disinfection of Sanitary Well?
- 4. What are different types of Sanitary Latrine? Write in detail about R.C.A. Latrine.
- 5. What is the definition of Personal Hygiene? What are the diseases that will occur due to lack of Personal Hygiene?
- 6. What do you mean by Food Sanitation? What is Food Adulteration?
- 7. Write in detail about sanitary measures you take of Fairs and Festivals.
- 8. What are different Occupational Risk Factors?
- 9. Write the importance of communication skills.
- 10. Write in detail about Indian Epidemic Disease Act.
- 11. What Health education resources you take to dispose of dead bodies?
- 12. What is Break point of chlorination? What Health education resources you give for the usage of sanitary latrines in Rural areas under Swatch Bharath Scheme.

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COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN OPTOMETRY TECHNICIAN COURSE

PAPER I

Anatomy & Physiology of Eye

- 1. Describe blood supply of eye
- 2. Describe retinal layers
- 3. Describe UVEA
- 4. Describe Lacrimal Apparatus
- 5. Draw structure of Eye Lid
- 6. Draw visual pathway and label it
- 7. What is Intra ocular pressure
- 8. Describe Ocular movements
- 9. Write about mean, median and mode and the importance of Biostatistics.
- 10. Transparency of CORNEA
- 11. Visual perception
- 12. What are fat soluble vitamins? Write the sources, daily requirements and deficiency manifestations of Vitamin D

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN OPTOMETRY TECHNICIAN COURSE

PAPER II

Mechanical, Geometrical & Physiological Optics

- 1. Write various methods of sterilization
- 2. What is APHAKIA and how you manage for best vision?
- 3. What are the properties of light?
- 4. What are laws of reflection and refraction?
- 5. Describe various types of Mirrors
- 6. What is the normal Optical system of Eye?
- 7. What is the Optical System of abnormal Eye?
- 8. What is colour vision and what are various colour vision defects?
- 9. How spectacle lenses were prepared?
- 10. What are the causes of blindness?
- 11. What do you mean by combination of lenses?
- 12. Draw the formation of Retinal images in Myopia, Hypermetropia, and in Astigmatism

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN OPTOMETRY TECHNICIAN COURSE

PAPER III

Clinical Refraction

- 1. What are low visual Aids?
- 2. What are various refractive surgeries?
- 3. What are Intra Ocular lenses? Describe them.
- 4. What are contact lenses, describe them?
- 5. What are the methods to correct Refractive errors?
- 6. Describe LASIK
- 7. What is myopia? Types of Myopia and the connection
- 8. What is the "Practice of Retinoscopy"?
- 9. What are "Cycloplegics in refraction"?
- 10. What do you mean by cross cylinders?
- 11. Prisms in clinical practices
- 12. Importance of communication skills

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN MEDICAL IMAGING TECHNICIAN COURSE

PAPER I

Dark Room & Radiography Techniques

- 1. Explain about transformers.
- Explain about developer and fixer and procedure of development of X- Ray.
- 3. What is fog and explain different types of fog?
- 4. Explain about TLD badges.
- 5. Describe the anatomy and radiographic view of the chest
- 6. Explain about HSG (Histerio Salphingo Graphs)
- 7. Explain Radiographic Artifacts in conventional X-Ray, CT and MRI
- 8. Explain the maintenance of Dark Room and Film Construction.
- 9. Write about mean, median and mode and the importance of Biostatistics in the hospitals
- 10. Classify Vitamins. Explain about the sources, daily requirement and deficiency manifestations of Vitamin A
- 11. Explain in detail about capacitor and conductor
- 12. Explain about Grids.

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN MEDICAL IMAGING TECHNICIAN COURSE PAPER II

Ultra Sonography & Color Doppler

- 1. Describe about principles of colour doppler
- 2. Principles of ultrasound
- 3. Explain about transducers
- 4. Describe about MR angiography
- 5. Explain about PET- CT Scan.
- 6. Merits and demerits of Ultrasound, CT, MRI.
- 7. Hazards of Ultrasound
- 8. Write about Sterilization methods
- 9. Merits and demerits of conventional ultrasound and endoscopic ultrasound.
- 10. Transcranial Doppler
- 11. Ultrasound guided procedures
- 12. Contrast agents in ultrasound

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017

DIPLOMA IN MEDICAL IMAGING TECHNICIAN COURSE PAPER III

MRI Techniques & Nuclear Medicine Technology

- 1. Explain in detail about the radiation
- 2. Explain in detail about the measures for protection from radiation
- 3. Explain in detail about the MRI techniques
- 4. Explain in detail about the emergencies in radiology department and their management
- 5. Explain in detail about the nuclear medicine technology
- 6. Explain in detail about the Fluoroscopic radiography
- 7. MR Spectroscopy
- 8. Explain about types of magnets
- 9. What are the life saving accessories for Radiology department
- 10. Importance of communication skills
- 11. Explain advantages and disadvantages of MRI
- 12. Explain about various types of MRI coils

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN CATHLAB TECHNICIAN COURSE

PAPER I

Cardiac Catheterization & Cardiac Physiology

Time: 3hrs.

Answer any **TEN** Questions

All Questions carry equal marks

Write the entire answer to a question at one place only but not in different stages

- 1. Describe the normal anatomy of the coronary arteries. Draw a diagram of the coronary arteries and label the parts. (4+4)
- 2. What are the normal pressures in Left Atrium, Left Ventricle, Aorta, Right atrium, Right Ventricle and Pulmonary Artery? Draw the pullback pressure tracing curve from LV to Aorta in a normal person (4+4)
- 3. Draw a diagram showing coronary angiogram of the following views and label the parts (2+3+3)
 - a) LAO view of normal Right coronary artery
 - b) LAO caudal of normal Left coronary artery
 - LAO cranial view of RCA showing block in Posterior descending artery
- 4. What is the instrument used to measure intra-arterial pressure in the cath. Lab? Draw the normal pressure tracing when the catheter is in the coronary artery. What is damping? What is ventricularization? (2+2+2+2)
- 5. Draw a representative diagram of the circulation of the body. Describe briefly the functions of the circulatory system (5+3)
- 6. Mention the indications and contraindications for cardiac catheterization. (4+4)

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COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017

DIPLOMA IN CATHLAB TECHNICIAN COURSE PAPER II

Devices used in Pacing Pacemaker

- 1. Write in detail about cardiac output
- 2. What is VVI permanent pacing? Mention at least 2 indications for Permanent pace maker therapy. Briefly describe the procedure of Permanent pacemaker implantation (1+2+5)
- 3. Describe the preparation of a patient for permanent pacemaker implantation. What are the important steps / precautions advised to a patient after PPI? (4+4)
- 4. Describe the clinical manifestations and investigations of Deep Venous Thrombosis
- 5. What is congenital heart disease (CHD)? Classify congenital heart diseases. Given at least four examples belonging to different groups. (2+3+3)
- 6. What is the letter coding for permanent pacemakers? What does each letter mean? Give two examples of letter coding and how thy function? (2+3+3)
- 7. What is PDA? Briefly describe the circulation in PDA. Draw an Echo picture showing a PDA. Mention one intervention that can be done in a cath lab to close a PDA. Briefly describe its steps (1+2+2+1+2)
- 8. Explain the sterilization techniques used for cardiac devices.

- 9. What is hypothermia? What are the effects of hypothermia on the human body? Mention 1 or 2 situations where hypothermia is used for medical purposes. How is artificial hypothermia induced (made) in the patient? (1+3+2+2)
- 10. What is AICD? (Automatic Implantable Cardioverter Defibrillator) What are indications for implanting defibrillators in a patient? What precautions / advice is given to a patient with AICD? (2+3+3)
- 11. Describe briefly the steps in performing Temporary Pacemaker Insertion. Mention the usual settings at which the pacemaker is put on. (5+3)
- 12. Mention any three vessels through which we insert sheaths to gain access to the heart chambers. Write the "catheter course" or the route along which the guidewire etc. will go from the vessel to the heart for any two of these vessels. (4+4)

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017

DIPLOMA IN CATHLAB TECHNICIAN COURSE

PAPER III

Cardio Vascular Physiology

Total Marks:80 All Questions carry equal marks Time: 3hrs. Answer any TEN Questions Write the entire answer to a question at one place only but not in different stages

- 1. What is CPR, BLS and ALS (ACLS)? Describe briefly the steps of (3+5)CPR in a patient with Ventricular Fibrillation
- 2. What is Atrial Septal Defect? Mention at least two types of ASD? Describe briefly the What is the main ECG features of ASD? (2+2+1+3)procedure of device closure of ASD
- 3. Draw a normal ECG and label the parts. Mention the origin of each wave/complex.
- 4. What is hexaxial system of the heart? Draw the hexaxial system of (2+3+3)the heart. What is Einthon's law?
 - 5. Write short notes on the following

(4+4)

- a) ECG artifacts
- b) Damping
- 6. Write the various types of acyanotic heart diseases
- 7. Mention at least two cardiac causes for chest pain. Mention one common test done in a patient with chest pain to know if it is cardiac ischemic pain. Describe briefly how the test is done?

(2+1+5)

- 8. Draw the ECG in V1 lead in RBBB and LBBB. Mention one cause for RBBB and one for LBBB. What is it used for? (2+2+2+2)
- 9. Explain the types of communication



10. Write short notes on (what it is, what it is used for) (4+4)a) Holter monitoring b) Transesophageal Echocardiography

11. Write briefly the steps of the procedure of the following interventions (4+4)

a) PPI

b) PBMV

12. Write short notes on the following

(4+4)

a) Indications for Treadmill test

b) Contraindications for TMT

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS - DECEMBER, 2017 DIPLOMA IN AUDIOMETRY TECHNICIAN COURSE

PAPER I

Basics of Anatomy, Physiology, Biochemistry, Human Ear & Biostatistics

- 1. Write in detail about Anatomy of Middle Ear with diagram.
- 2. Explain about physiology of Balance (Equilibrium).
- 3. Describe the anatomy of digestive tract.
- 4. Write the origin, course and innervation of Tenth Cranial Nerve.
- 5. Describe mechanism of Coagulation.
- 6. Describe auditory pathway of Central Nervous System.
- 7. Describe the anatomy of Larynx with diagrams.
- 8. Principle and types of Centrifuge.
- 9. Explain Physiology of hearing
- 10. Write in detail about Photo Electric Colorimeter.
- 11. Write about Fat Soluble Vitamins. Write the sources, daily requirement and deficiency manifestations of Vitamin D
- 12. Describe the guidelines of Audiometry testing.

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN AUDIOMETRY TECHNICIAN COURSE PAPER II

Basics of Pathology, Microbiology, Speech and Language Development

- 1. Write about Treatment and Disposal of Biomedical Waste in Microbiology Laboratory.
- 2. Explain about formation of C.S.F. Write about CSF Analysis.
- 3. Write about the causes of mixed hearing loss
- 4. Describe in detail about Sputum Analysis.
- 5. Write about defective speech and language development.
- 6. What are the types of microscope? Write about working and maintenance of compound microscope.
- 7. Write about Malingering and tests to identify it.
- 8. Write about Glue Ear. Impedance Audiogram Scan in Glue Ear.
- 9. Types of Hearing Loss and describe about Nerve deafness.
- 10. Discuss about various methods of Language Assessment.
- 11. Write methods of sterilization. Write about Chemical methods of sterilization.
- 12. Write about morphology and classification of Bacteria. What are the types of Culture media?

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN AUDIOMETRY TECHNICIAN COURSE

PAPER III Audiogram

- 1. Explain the instrumentation required for Speech Audiometry.
- 2. Describe about checking of Audiometer functions.
- Write about General Patient Care.
- 4. Describe about Shock Management.
- 5. Write about preoperative preparations of patient.
- 6. Write about MS power point presentation.
- 7. Write strategies in effective communication.
- 8. What is audiometer? Write the method of pure tone audiometry
- 9. Write about duties of Scrub Nurse and Circulating.
- 10. Write about impedance audiometry
- 11. Describe the parameters of sound.
- 12. Write about CSSD. (Central Sterile Services Department)

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017

DIPLOMA IN RADIOGRAPHIC ASSISTANT COURSE PAPER I

Radiation Hazards & Protection Measures

- 1. Effects of radiation on human tissues
- 2. Explain about Barium Swallow.
- 3. What is the procedure of film processing in dark room?
- 4. Describe the permissible doses for patient and staff in the Radiology department
- 5. What are the different protective measures during Radiography
- 6. What are the protective gadgets in the Radiology department?
- 7. Write about uses and properties of X-Ray
- 8. What are the precautions and procedures during Bed side X-Ray?
- 9. Name Respiratory Organs. Describe the external features of right lung
- 10. Describe about Mammographic film processing
- 11. Sources, daily requirements and deficiency manifestations of Vitamin D
- 12. Define Biostatistics. Write about Mean, Median and Mode

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN RADIOGRAPHIC ASSISTANT COURSE PAPER II

Radiography Techniques & Radiographic Anatomy

- Explain Fluoroscopy.
- 2. Preparation of patients for general X-ray examination
- 3. Explain construction of X-Ray room as per the AERB (Atomic Energy Regulatory Board) norms
- 4. Explain the procedure of HSG
- 5. Explain positioning and centering of skull lateral view
- 6. Describe the Radiographic anatomy of Pelvis
- 7. Write about Biochemical waste management
- 8. What is insulation and conduction?
- 9. Explain in detail about PET-CT
- 10. Explain the procedure of Barium Enema.
- 11. Explain methods of sterilization
- 12. What are the Hazards of MRI and safety measures in MRI?

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN RADIOGRAPHIC ASSISTANT COURSE

PAPER III

Ultra Sound Imaging, Interventional Procedures & Angiography

- 1. What are the basic principles of MRI?
- 2. Explain about principles of colour doppler
- 3. Explain the principle and various techniques of DSA (Digital Subtraction Angiography)
- 4. Explain various interventional procedures
- 5. What are the uses of Ultrasound?
- 6. Explain CT guided interventional procedures.
- 7. Explain the role of C-arm in Radiology
- 8. What are the Hazards of MR1?
- 9. What are the procedures of Image guided biopsies?
- 10. What are the basics of Cardiac Catheterization?
- 11. What are the CT contrast enhanced protocols?
- 12. Importance of Communication skills

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017

DIPLOMA IN ECG TECHNICIAN COURSE

PAPER I

Electro Physiology

- 1. Draw the normal ECG and label the parts. Describe the normal ECG and intervals. (4+4)
- 2. What are the ECG features of acute myocardial infarction? Draw an ECG showing these changes. In which leads do you see these changes. (3+3+2)
- 3. What is tachycardia? Draw an ECG showing Ventricular Tachycardia (VT). Describe the ECG features of VT. Mention one cause of VT. What treatment will you give to a patient who has VT and pulse not felt? (1+2+2+1+2)
- 4. A 70 year man came to the hospital complaining of giddiness (reeling). His pulse rate is 40/min. He told that he was recently prescribed atenolol 50mg per day from one week. His ECG shows regular P-P interval and regular R-R interval but varying R-R interval. His BP is 90/60. What is the likely diagnosis? What is the possible cause for this? Draw an ECG showing this diagnosis. Mention one intervention procedure that can help him. (2+1+3+2)
- 5. Explain the safety standards of ECG machine

- 6. What is Hexaxial system? Draw a diagram depicting it. What is Einthoven's law? (3+2+3)
- 7. Explain the principles of AC & DC
- 8. Draw a diagram how you will connect the electrodes and leads (to limbs and on chest) to record a normal ECG. Describe the anatomical placement of these electrodes (on limbs and on chest) (2+2+2+2)
- 9. What are fat soluble vitamins? Write sources, daily requirement, deficiency manifestations of Vitamin C
- 10. Mention any two types of ECG pattern that you may see on the monitor during cardiac arrest. Draw ECGs of the two patterns. Write one definitive treatment for each of these (3+3+2)
- 11. Write short notes on a) Ohm's law b) CRT tubes
- 12. Write about the types of Statistical Data Display

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN ECG TECHNICIAN COURSE

PAPER II

Cardio Vascular Pathology, Anatomy, Physiology & Biochemistry

- 1. Draw a diagram showing the chambers of the heart and label the parts. Describe the anatomy of the cardiac chambers. (4+4)
- 2. What is normal blood pressure? What is hypotension and shock? What is Hypertension? Mention any two commonly used antihypertensive drugs. (2+2+2)
- 3. Describe briefly the conduction system of the heart. Draw a diagram showing the same. (4+4)
- 4. Write short notes on the following (what is the drug and what it does, one condition where it is used, dose and route of administration) (2+2+2+2)
 a) Adrenaline b) Atorvastatin c) Aspirin d) Frusemide (Lasix)
- 5. What is heart failure? Name at least two important symptoms (complaints) it causes. Mention two common causes. Mention any two important drugs used to treat HF. (2+2+2)
- 6. Write short notes on the following
 a) Mitral Regurgitation b) Pericardial effusion
- 7. What is Mitral Stenosis? What complaints does it cause in the patient? What arrhythmia is common in MS? What procedure is done in the cath. Lab to treat MS? (2+2+2+2)
- 8. Describe briefly the blood supply to the heart. What is stable angina? Mention two drugs used in stable angina. (4+2+2)

- 9. What is CPR? What is BLS? Describe briefly the procedure of performing CPR. (1+1+6)
- 10. What are the standard 2D Echocardiography views? Draw diagrams of the views and label the parts. (4+4)
- 11. What is ASD, VSD, PDA? Draw an echo diagram showing ASD. What intervention procedure can be done in the cath. Lab to treat ASD? (3+3+2)
- 12. Write short notes on

(4+4)

- a) List of important duties of Technician in the ICU
- b) How computers help in Cardiology department / ICU

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN ECG TECHNICIAN COURSE

PAPER III

Defibrillator-indications & Operations

Time: 3hrs.

Answer any TEN Questions

All Questions carry equal marks

Write the entire answer to a question at one place only but not in different stages

- 1. What is defibrillation? Mention two diseases where a defibrillator is used. Describe briefly how you will prepare the patient for administering a DC shock to a patient. (2+2+4)
- 2. Write short notes (what it is, what is it used for and how it is done) (4+4)
 - a) Holter monitoring b) Dobutamine stress echo
- 3. Mention four indications for TMT. What are the precautions to be take before TMT? When you will terminate TMT? (2+3+3)
- 4. Write the strategies in effective communication
- 5. What is cardiac tamponade? Which investigation will help to diagnose it? What treatment procedure will help this patient? Describe briefly the procedure (2+2+4)
- 6. What is permanent pace maker implantation (PPI)? What is used for? Describe briefly the procedure. (2+2+4)
- Write short notes on (write full form, what is it, and what it is used for)
 a) PTCA b) PBMV (4+4)

Contd...2

- 8. Describe briefly how you will interpret (diagnose) a given TMT recording. Draw diagrams showing the different interpretations. What is false positive result?
- 9. Draw diagrams of following types of Echo. Write one disease you can diagnose from each of them. (2+2+2+2)
- a) M-mode b) Color Doppler c) Pulse Wave Doppler
- c) Continuous Doppler
- 10. What short notes on the following (what is it. What is it used for, where it is placed anatomically)
 - a) Stent b) Device closure

(4+4)

- 11. Write short notes on
 - a) Damping b) Recording artifacts

(4+4)

12. What are the indications for defibrillation?

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017

DIPLOMA IN CARDIOLOGY TECHNICIAN COURSE

PAPER III

Introduction of ICU

Time: 3hrs.

Answer any **TEN** Questions

All Questions carry equal marks

Write the entire answer to a question at one place only but not in different stages

- Explain the precautions to be taken in collection and transporting of body samples
- 2. What are the duties of a technician in the ICCU? What precautions (care) are to be taken before delivering shock (elective DC shock) (4+4)
- 3. What are the different methods to give oxygen to patients in the ICU? Mention any two disease conditions where oxygen is given. Write the position which is kept for a patient with shock and for a patient with acute left ventricular effect (4+2+1+1)
- 4. What are the various types of Echocardiography? What is the main purpose for each of these types? (4+4)
- 5. Describe the methods of Sterilization
- 6. Write short notes on (what is it, where it is used in Cardiology patient care, our role in implementing it)
 a) Patient confidentiality b) Informed consent (4+4)
- 7. Write the methods by which a person is diagnosed to be dead. What is the main treatment of VF and main treatment for Asystole? (5+3)
- 8. Write short notes on (what is it, where it is used)

(4+4)

- a) Endotracheal tube and Laryngoscope
- b) Temporary pacing lead and pulse generator

Cond...2

- 9. Explain types of Communication skills.
- 10. What are the 3 main types of cardiac arrest (by ECG or monitoring)? Write the main treatment for each of these types of cardiac arrest. (4+4)
- 11. Write short notes on (what is the drug, what its main action. Where it is used, one side effect)
 - a) Atropine b) Frusemide

(4+4)

12. Write the names of any two important equipments used in the cardiac ICU. Describe briefly how to use each of them. What is the main use of each of the instrument? (2+3+3)

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN CARDIOLOGY TECHNICIAN COURSE

PAPER I

Clinical Cardiology & Congenial Heart Diseases

Time: 3hrs.

Answer any **TEN** Questions

All Questions carry equal marks

Write the entire answer to a question at one place only but not in different stages

- 1. What is normal blood pressure? What is hypertension? What is hypotension? Write briefly how to measure systolic BP by palpation (2+1+1+4)
- 2. What is mitral stenosis (MS)? Draw a parasternal Echo view showing MS and label the parts. Mention one arrhythmia that commonly occurs in MS. What is the purpose of doing Transesophageal Echo in MS (2+4+1+1)
- 3. What is heart failure? Mention any two causes of heart failure. Mention any three clinical features of heart failure. Mention one investigation that will help to diagnose heart failure. (2+2+2+2)
- 4. What is the normal heart rate? Which heart rate is called bradycardia and tachycardia? Mention one IV drug used to treat bradycardia and syncope. Mention one emergency intervention procedure used to treat bradycardia. Describe briefly this intervention procedure (1+2+2+3)
- 5. What is myocardial infarction? What are the important ECG features of MI? Draw the ECG features of MI. (2+3+3)
- 6. What are the risk factors which lead to Myocardial infarction? Mention the main lifestyle advice (regarding diet, habits etc.) that is given to prevent MI. (4+4)

Contd...2

- 7. Causes and complications of Obesity.
- 8. Mention water soluble Vitamins. Write the sources, daily requirements and deficiency manifestations of Vitamin D
- 9. Mention the uses of Biostatistics. Write about Mean, Median and Mode
- 10. Write about congenital heart diseases
- 11. What is (stable) angina? Describe briefly how a TMT is done and what we look for. (1+5+2)
- 12. Draw a neat diagram of human heart and label it.

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN CARDIOLOGY TECHNICIAN COURSE

PAPER II

Hypothermia & Pharmacology

- 1. Draw a normal ECG and label the parts. Mention how each wave/complex is produced. (5+3)
- 2. Draw an ECG (lead) showing Complete Heart Block. Write the important ECG features of CHB. What complaint will a patient of CHB have? Mention one intervention procedure used to give permanent treatment to a patient with CHB. Describe very briefly the steps of the procedure. (2+2+1+3)
- 3. What is cardiac Catheterization? Describe briefly how to prepare a patient for cardiac catheterization. (2+6)
- 4. Explain Einthoven's Law
- 5. Write about Cardiopulmonary Resuscitation (CPR) and Basic Life Support (BLS) (4+4)
- 6. Hypothermia Classification, signs and management
- 7. A patient came with acute chest pain from 3 hours to ICU. Mention two important cardiac conditions for this complaint. Mention any three important tests that can be done in this patient. (2+3+3)
- 8. What is Holter testing? What is it used to diagnose? Describe very briefly the procedure of doing a Holter test. (2+3+3)

- 9. What are the emergency medications used in ICU?
- 10. What are the complications of Cardiac Catheterization? Mention what steps (of care) are taken will take to prevent the complications. (3+5)
- 11. What is arrhythmia? Give three examples. Mention any three important anti-arrhythmic drugs. (2+3+3)
- 12. Write short notes on:

(4+4)

a) Temporary pacemaker b) Defibrillation

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS - DECEMBER, 2017 DIPLOMA IN HOSPITAL FOOD SERVICE MANAGEMENT

PAPER I

General Principals of Management, Nutrition, Diet

Time: 3hrs.

Answer any **TEN** Questions

All Questions carry equal marks

Write the entire answer to a question at one place only but not in different stages

- 1. What are the differences between a hospital kitchen and a kitchen of a hotel?
- 2. How the food service in hospital canteen differ from the food served in a hotel?
- 3. Administrative hierarchy of a hospital canteen
- 4. What management steps do you take to keep the hospital kitchen hygienic?
- 5. Mention the following

4x2

- a) What is meant by a physician
- b) What is meant by abbreviation ANM
- c) What is the difference between an oven and a micro oven
- d) Mention water borne diseases
- 6. Mention the following

4x2

- a) How do you store the eggs?
- b) How do you store bread?
- c) How do you preserve fish?
- d) How do you store tomatoes?

- 7. Mention the following
 - a) Food safety law in India
 - b) Consumer protection act
 - c) Define Labour law
 - d) ISI and AGMARK
- 8. Describe the following
 - a) What is Franchise?
 - b) What is house keeping?
 - c) What is Bewarage?
 - d) What do you mean by abbreviation W.H.O.?
- 9. Mention the following
 - a) What is a computer?
 - b) What is a CPU?
 - c) What a key board?
 - d) What is hard ware?
- 10. Define the following.
 - a) Adulteration
 - b) Nutritional assessment
 - c) Folic acid
 - d) Mention some vitamins
- 11. What are various administrative requirements / clearances to start a kitchen or canteen in a hospital?
- 12. Write in detail pressure cooking and simmering.

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2017 DIPLOMA IN HOSPITAL FOOD SERVICE MANAGEMENT

PAPER II

Dietary principles, Hygienic principles of food supply in Hospital

- 1. Mention the role of Hospital Food Service Managers
- 2. What precautions do you take in preparation, handling and serving the food in Hospital canteen to outpatients and visitors?
- 3. What personal hygiene steps do you advise to workers in hospital kitchen while preparation of patient diet?
- 4. How do you transport the diet from kitchen to the in patients in the wards?
- 5. Name 5 diseases that can be transmitted by the Un-hygienic food served to an individual
- 6. What is pasteurization? Mention the advantages with examples
- 7. Do you advise direct flame heated cooking or steam heat for cooking, if so why?
- 8. How the inventory helps the food supply manager to maintain good standards of service?
- 9. What is an under nutrition in hospital patients and what are its complications?

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10. Mention the following

4x2marks

- a) Difference between polished rice and parboiled rice
- b) You will not serve a patient the fresh milk kept at room temperature for more than a day. Why?
- c) You will not serve the patient ripe grapes kept at room temperature for more than a week. Why?
- d) What is yeast and mention its uses in food preparation in a hospital kitchen

11. Mention the following

4x2marks

- a) Diet for Diabetic patient
- b) Diet for Patient with Hypertension
- c) Diet for Patient with Hepatitis
- d) Diet for patient in semi comatose condition

4x2marks

- 12. Answer the following briefly
 - a) What are the reasons for the food to spoil when kept at room temperature for long?
 - b) Why you should not serve the food fallen on the ground to a customer in your hospital canteen?
 - c) Do you serve chilled water or luke warm water for gargling to a
 patient with sore throat
 - d) What steps do you take during bed side diet service in the ward to prevent litters/dogs invading the wards?