

TELANGANA STATE PARAMEDICAL BOARD, HYDERABAD

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2021

DIPLOMA IN MEDICAL LAB TECHNICIAN COURSE (DMLT)

PAPER III

Biochemistry, Techniques & Metabolism

Exam date-16/12/2021

Time: 3hrs.

Total Marks:80

Answer any **TEN(10)** Questions only

Each Question carries 8 marks

1. Explain in detail about the different types of centrifuges and precautions to be taken during centrifugation.
2. Explain in detail about various tests required to know the kidney functions. How do you estimate Creatinine in a given sample?
3. Explain in detail about various fluids in human body. Describe the procedure for Glucose estimation in CSF.
4. Describe the “Flame Photometer”. Name the electrolytes and give their normal values.
5. What are different ‘hazards’ in the chemical laboratory? How do you prevent them?
6. Name the Thyroid function tests. Describe ELISA technique.
7. What are liver function tests and write the estimation of Bilirubin.
8. Explain in detail about “computer & communication skills” and their advantages.
9. Explain in detail about “laboratory Ethics”.
10. Enumerate the anticoagulants used in the lab and write the procedure for blood sample collection.
11. Define Electrophoresis. Write down the procedure for serum protein electrophoresis by Agarose gel.
12. Explain in detail about the qualitative tests used for determination of Urine Sugar and Ketone bodies.

TELANGANA STATE PARAMEDICAL BOARD, HYDERABAD

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2021

DIPLOMA IN MEDICAL IMAGING TECHNICIAN COURSE

PAPER III

MRI Techniques & Nuclear Medicine Technology

Exam date-16/12/2021

Time: 3hrs.

Answer any **TEN(10)** Questions only

Total Marks:80

Each Question carries 8 marks

1. Draw a neat labelled diagram of gamma camera.
2. Explain Principle of PET-CT.
3. Write about MRCP and its advantages over ERCP.
4. What is the principle of MRI. What are T1 and T2 weighted images?
5. Write about MRI machine and related hardware?
6. How do you prepare a patient for MRI? What are contraindications of MRI?
7. Different types of magnets used for MRI.
8. Draw a labelled diagram of cross sectional (axial) CT anatomy of brain.
9. Comparison of CT and MRI advantages and disadvantages.
10. Describe protocol for MRI of brain.
11. What are various artifacts in CT and methods to reduce them.
12. Protocol used in MRI of knee.

TELANGANA STATE PARAMEDICAL BOARD, HYDERABAD

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2021

DIPLOMA IN OPHTHALMIC ASSISTANT COURSE

PAPER III

Optics, Refraction

Exam date-16/12/2021

Time: 3hrs.

Total Marks:80

Answer any **TEN(10)** Questions only

Each Question carries 8 marks

1. What is neutralization write about methods of neutralization?
2. Write briefly A) Aphakia B) Pseudoaphakia.
3. Write briefly about types and indications of Contact lenses
4. Write briefly A) Maddox rod B) Pin hole.
5. Write briefly about mechanism accommodation?
6. Define Ametropia. Discuss about astigmatism & its management?
7. Write briefly a) Auto Refractometer b) Keratometer.
8. Write briefly refractive surgery myopia?
9. Write about types of bifocal lenses?
10. Discuss about Progressive lenses.
11. Explain in detail about Vitamin 'A' Deficiencies and its management?
12. Explain about Low vision and various types of low visual aids.

TELANGANA STATE PARAMEDICAL BOARD, HYDERABAD

**COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2021
DIPLOMA IN DIALYSIS TECHNICIAN COURSE**

PAPER III

Dialysis-II (Techniques) Diseases of Kidney & Haemodialysis

Exam date-16/12/2021

Time: 3hrs.

Answer any **TEN(10)** Questions only

Total Marks:80

Each Question carries 8 marks

1. What are the Alarms during dialysis procedure?
2. Write the Components of Water processing plant.
3. What are the duties of dialysis technician?
4. What are the medicines used in transplant patient?
5. What do you know about Jeevandan programme of government of Telangana?
6. Please explain about the hub and spoke model of dialysis.
7. What is Hypotension during dialysis?
8. Write about Care of central venous catheters?
9. Emergency drugs used in dialysis and their uses.
10. Cardiopulmonary resuscitation procedure?
11. Complications and precautions during first dialysis?
12. Types of fistulas and needling technique and explain the precautions to be taken and complications?

TELANGANA STATE PARAMEDICAL BOARD, HYDERABAD

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2021 DIPLOMA IN MEDICAL STERILIZATION MANAGEMENT AND OPERATION THEATRE TECHNICIAN COURSE PAPER III

Bio Medical Sciences, Physical Examinations & Cardiac Procedures

Exam date-16/12/2021

Time: 3hrs.

Answer any **TEN(10)** Questions only

Total Marks:80

Each Question carries 8 marks

1. Write about types of endoscopic procedure, designs of endoscopes and their sterilization methods.
2. Write about prevention of electric and fire hazard in OT.
3. Write about layout of CSSD.
4. Write in detail about electro surgical cattery.
5. Write about Disaster management.
6. Diagram of ambubag and its uses.
7. Write about sterilization techniques used in ICU.
8. Write about IV fluids used in operation theatre.
9. Explain about Suction machine.
10. Write about oxygen therapy.
11. Write in detail about assessment and management of Hemorrhage.
12. Write about Peripheral venous cannulation. What are IV cannulas available in OT for adults and pediatric?

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COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2021 DIPLOMA IN PERFUSION TECHNICIAN COURSE PAPER III

Cardio Pulmonary By Pass & Clinical Application of By Pass Techniques

Exam date-16/12/2021

Time: 3hrs.

Answer any **TEN(10)** Questions only

Total Marks:80

Each Question carries 8 marks

1. Discuss hazards of cardiopulmonary bypass in details?
2. Discuss in detail Intra Aortic Balloon Pump (IABP) in cardiac Surgery?
3. Discuss in detail Retrograde cardioplegia ?
4. Discuss criteria for selection arterial & venous cannulae in cardiopulmonary bypass?
5. Describe effective electrical earthing of equipment in cardiac surgery?
6. Assembling and preparing circuits for heart lung machine?
7. Write a note on reperfusion injury and problem faced in long pump/cross clamp?
8. What is Cardiac Arrest? Write its management
9. Write the procedure for Arterial blood Collection?
10. What care to be taken for patient on mechanical Ventilator?
11. Write detailed procedure for Handling ABG Machine?
12. What is counter pulsation? Discuss its working and uses in cardiac surgery?

TELANGANA STATE PARAMEDICAL BOARD, HYDERABAD

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2021

DIPLOMA IN OPTOMETRY TECHNICIAN COURSE

PAPER III

Clinical Refraction, Diseases of Eye, Case Presentation

Exam date-16/12/2021

Time: 3hrs.

Total Marks:80

Answer any **TEN(10)** Questions only

Each Question carries 8 marks

1. Write about a) spherical aberration b) chromatic aberration?
2. Explain Darkroom test procedures.
3. What is Presbyopia & discuss briefly?
4. How do you manage a case of anisometropia?
5. Write briefly a) Jackson cross cylinder b) Stenopic slit
6. What is compute vision syndrome?
7. Discuss the management of hypermetropia.
8. Write about types of amblyopia and management.
9. Write about transposition and example?
10. Write about procedure of retinoscopy?
11. Discuss briefly a) trichiasis b) douchrome test.
12. Discuss briefly case presentation of senile cataract.

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2021
DIPLOMA IN RADIOTHERAPY TECHNICIAN COURSE
PAPER III

Radiation Therapy Physics & Radiation Protection

Exam date-16/12/2021

Time: 3hrs.

Total Marks:80

Answer any **TEN(10)** Questions only

Each Question carries 8 marks

1. Write about fractionations and its usefulness in radiotherapy.
2. What are the common types of malignancies occurring in children?
3. Describe the steps in the treatment of carcinoma breast with radiotherapy.
4. Explain in detail about palliative care in radiotherapy.
5. Write a note on concurrent chemo radiotherapy and its importance? Give examples?
6. What are radioactive isotopes? What are the different radioactive isotopes used in medicine?
7. Explain about primary and secondary barriers.
8. Write a note on
 - (1) EPID
 - (2) MLC
9. What are the different immobilization devices used in radiotherapy? Describe in detail about moulds?
10. Discuss briefly about
 - (1) SRS
 - (2) SRT
11. Explain in detail about Styrofoam cutter.
12. What is the role of Radiation therapy technologist in external beam therapy treatment room?

DIPLOMA IN RADIOGRAPHIC ASSISTANT COURSE

PAPER III

Ultra Sound Imaging, Interventional Procedures & Angiography

Exam date-16/12/2021

Time: 3hrs.

Answer any **TEN(10)** Questions only

Total Marks:80

Each Question carries 8 marks

1. Write about HSG procedures.
2. Write short notes on CR and DR.
3. Briefly discuss about CT angiography and its applications
4. Define radioactivity and mention types of radiation.
5. Discuss about various ultrasound guided interventional procedures?
6. Write about sonomammography and what are the advantages over x-ray mammography.
7. Discuss basic principles of ultrasound?
8. Discuss briefly fistulogram.
9. Discuss AERB guidelines in the department of radiology.
10. What is radionuclide scan? Write short notes on gamma camera.
11. Write briefly on TVS (Transvaginal ultrasound).
12. Discuss the principle and applications of colour doppler.

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COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2021

DIPLOMA IN CARDIOLOGY TECHNICIAN COURSE

PAPER III

Introduction of ICU and its Structure

Exam date-16/12/2021

Time: 3hrs.

Answer any **TEN(10)** Questions only

Total Marks:80

Each Question carries 8 marks

1. Describe about the ICCU and its maintenance.
2. Describe about the use of mobile ICCU in current day cardiology practice.
3. Role of cardiology technician in ICCU.
4. Describe the diagnosis and management of SVT in ICCU.
5. Describe about the pericardiocentesis – procedure, indications, complications post procedure.
6. Describe about the diagnosis and management of cardiogenic shock in ICCU.
7. Describe about the diagnosis and management of acute myocardial infarction.
8. Describe about the uses of defibrillator in ICCU.
9. Describe about the ACLS.
10. Describe about the cardiology emergency drugs.
11. Describe about the temporary pacemaker – indications, contraindications, complications.
12. Diagnosis and management of ventricular tachycardia.

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2021
DIPLOMA IN CATHLAB TECHNICIAN COURSE
PAPER III

Cardio Vascular Physiology & Pulmonary Resuscitation

Exam date-16/12/2021

Time: 3hrs.

Answer any **TEN(10)** Questions only

Total Marks:80

Each Question carries 8 marks

1. Write a note on Ventricular Tachycardia.
2. Write a note on Functioning of Defibrillator.
3. Write a note on Steps of CPR.
4. Write a note on Multiparameter Monitor.
5. Write a note on Adrenaline.
6. Write a note on Cardiac Output.
7. Write a note on Endotracheal Tube.
8. Write a note on Hemodynamic Monitor.
9. Write a note on Zero Balancing.
10. Write a note on Air Embolism.
11. Write a note on Adenosine.
12. Write a note on Damping.

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COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2021

DIPLOMA IN ECG TECHNICIAN COURSE

PAPER III

Defibrillator-indications & Operations

Exam date-16/12/2021

Time: 3hrs.

Answer any **TEN(10)** Questions only

Total Marks:80

Each Question carries 8 marks

1. Describe about the use of defibrillator in ICCU.
2. Describe about the sinoatrial node anatomy, blood supply and its function.
3. Describe in detail about automated external defibrillator (AED).
4. What is overdrive pacing? What are the indications for over drive pacing?
5. Diagnosis and management of Ventricular tachycardia.
6. Describe about Cardiopulmonary resuscitation.
7. Maintenance of ECG machines, defibrillators in ICCU.
8. Describe about various types of placements of pacing leads for cardio version.
Write about their advantages and disadvantages.
9. Describe about the drugs used in Bradycardia/Asystole.
10. Monitoring of a patient in ICCU.
11. ECG findings in a patient with a temporary pacemaker.
12. ECG changes in a patient undergoing a treadmill test.

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COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2021

DIPLOMA IN ANESTHESIA TECHNICIAN COURSE

PAPER III

Cardio Vascular Physiology & Pulmonary Resuscitation

Exam date-16/12/2021

Time: 3hrs.

Answer any **TEN(10)** Questions only

Total Marks:80

Each Question carries 8 marks

1. What is CPR? Write steps for CPR.
2. Write notes on pulse oxymeter.
3. Write about management of mechanical ventilator patient in I C U?
4. What are the different methods for oxygen therapy?
5. Explain about physiology of heart with diagram.
6. Explain in detail about defibrillator.
7. What is hypertension? Explain its treatment and complications.
8. Write the duties of Technicians in I C U?
9. Write about post operative care?
10. What are the types of blood groups? Write about blood products.
11. Explain in detail about the procedure to manage preoperative hypotension?
12. Explain in detail about instruments to be kept ready for general Anaesthesia.

TELANGANA STATE PARAMEDICAL BOARD, HYDERABAD

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2021

DIPLOMA IN MPHA (MALE) COURSE

PAPER III

Environmental Sanitation & Hygiene

Exam date-16/12/2021

Time: 3hrs.

Answer any **TEN(10)** Questions only

Total Marks: 80

Each Question carries 8 marks

1. Write a note on biomedical waste management.
2. Explain in detail about food adulteration how to protect the public by utilizing the food adulteration act.
3. Role and responsibilities of MPHA in Environmental Sanitation.
4. Write a note on Medical termination of Pregnancy Act.
5. Enumerate the various methods of water purification. Write a note on chlorination of water?
6. Describe in detail about various health hazards of air pollution and methods to prevent it?
7. Write various methods of excreta disposal and write a note on sanitation barrier.
8. What are the steps you adopt in the investigation of cholera epidemic in your village?
9. Discuss in detail about census and its importance.
10. Write about Global Warming.
11. Environmental factors in disease causation.
12. Explain the techniques and importance of hand washing.

TELANGANA STATE PARAMEDICAL BOARD, HYDERABAD
COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2021
DIPLOMA IN AUDIOMETRY TECHNICIAN COURSE

PAPER III

Audiogram

Exam date-16/12/2021

Time: 3hrs.

Answer any **TEN(10)** Questions only

Total Marks:80

Each Question carries 8 marks

1. What is mean by amplification, how useful when a child with moderate hearing loss.
2. What is the difference between mixed and sensory neural hearing loss.
3. Explain in detail about the behavioral observation Audiometry?
4. How to follow techniques in speech therapy in case of 5 years child with bilateral profound hearing loss.
5. What is mean by new born Hearing screening?
6. Explain various Screening Procedures for children.
7. What is mean by noise induced hearing loss?
8. What is mean by Presbycusis and Treatment?
9. Difference between analog and digital hearing aids.
10. How hearing aids are useful when a child has bilateral profound hearing loss.
11. Explain auditory training.
12. Explain augmentative and alternative communication (AAC).

TELANGANA STATE PARAMEDICAL BOARD, HYDERABAD

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2021

DIPLOMA IN DENTAL TECHNICIAN COURSE

PAPER III

Oral Anatomy, Applied Physics & Chemistry

Exam date-16/12/2021

Time: 3hrs.

Total Marks:80

Answer any **TEN(10)** Questions only

Each Question carries 8 marks

1. Write in detail about the anatomical landmarks of the maxillary denture bearing area and clinical significance of the same.
2. Describe in detail the anatomy of the permanent mandibular first molar.
3. Describe about the muscles of mastication.
4. What are the biological requirements of a dental material and write about the different physical factors effecting pulp health.
5. Describe the sequence of eruption of the primary and permanent dentition.
6. Write in detail about anatomy of maxillary bone and its process.
7. Write in detail about the different tooth numbering system.
8. Describe in detail about the electroplating and its application in dental lab work.
9. Write in detail about the anatomical landmarks in mandibular denture bearing area.
10. Write in detail about the Blood supply of teeth.
11. Write about the compensating curves.
12. Explain about Contracts and contours.

TELANGANA STATE PARAMEDICAL BOARD, HYDERABAD
COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2021
DIPLOMA IN EMERGENCY PARAMEDIC COURSE
PAPER III

Surgical Orthopedic, ENT Emergencies, Disasters, Obstetrics, OT & Post operative care

Exam date-16/12/2021

Time: 3hrs.

Answer any **TEN(10)** Questions only

Total Marks:80

Each Question carries 8 marks

1. Mention & Describe emergency investigation in case of burns.
2. How do you resuscitate poly trauma patient?
3. Describe the Ryel's tube and its indications.
4. Write steps in assessment of unconscious patient and how do you manage?
5. How do you manage kerosene ingestion in 5 year child?
6. How do you assess and manage fracture of femur in 60 year female.
7. How do you manage diabetes in III trimester in pregnancy.
8. How do you manage a case of cervical spondylosis patient with quadriplegia.
9. How do you assess and manage electrical burns in 40 year old patient.
10. Describe types of pneumothorax how do you manage?
11. How do you prepare for laparoscopic cholecystectomy & how do you monitor post operative period.
12. How do you manage breech delivery?

TELANGANA STATE PARAMEDICAL BOARD, HYDERABAD

COMBINED PARAMEDICAL (REGULAR) EXAMINATIONS, DECEMBER, 2021

DIPLOMA IN DARKROOM ASSISTANT COURSE

PAPER III

Ultrasound Imaging, Interventional Procedures & Angiography

Exam date-16/12/2021

Time: 3hrs.

Answer any **TEN(10)** Questions only

Total Marks:80

Each Question carries 8 marks

1. Write a short note on a) Hounsfield units
b) Various windows used in CT.
2. Write about digital subtraction angiography technique and preparation of patient.
3. Difference between x-ray mammography and somomammography.
4. CT anatomy of brain and draw diagram showing ventricles of brain.
5. Write about uses and adverse effects of CT contrast media.
6. How do you prepare a patient for oral and IV contrast CT abdomen?
7. Explain about CT angiography of lower limbs – techniques and uses.
8. Write short notes on a) fixer b) conventional x-ray cassette.
9. Differences between CT and MRI.
10. Write short notes on a) skyline view of patella b) scaphoid view.
11. Write in detail about the RGU.
12. Write about colour Doppler and its uses.
