POST GRADUATE DIPLOMA IN EMERGENCY MEDICAL TECHNOLOGY

REGULATIONS FOR THE POST GRADUATE DIPLOMA IN EMERGENCY MEDICAL TECHNOLOGY

1. **SHORT TITLE AND COMMENCEMENT :** These regulations shall be called "THE REGULATIONS FOR THE **POST GRADUATE DIPLOMA IN EMERGENCY MEDICAL TECHNOLOGY**
2. **REGISTRATION:** A candidate admitted into Post-Graduate diploma courses in any of the affiliated Institutions of the Tamil Nadu Dr. M.G.R. Medical University, Chennai shall register with the University by remitting the prescribed fees along with the application form for registration duly filled in and forwarded to the Controller of Examinations of this University through the Head of the affiliated institution within the stipulated date. The candidate's name must be registered in the University within 3 months from the date of his/her admission.
3. **ELIGIBILITY:** Candidates for admission to the One year Post-Graduate Diploma course shall be required to possess the following qualifications.
   - ✓ Bachelors with science stream
4. **RECOGNITION FEE:** Candidates who have passed the Bachelors in University shall remit a recognition fee as prescribed along with the stipulated registration fees.
5. **DURATION OF THE COURSE**
   - ✓ The period of certified study and training for the Post-Graduate Diploma course shall be for 1 year.
6. **COMMENCEMENT OF THE COURSE:** The academic year for Post Graduate Diploma in Emergency Medical Technology course will commence from April 1st of every academic year.
7. **CUT-OFF DATE OF THE COURSE:** Last date of Admission to Post Graduate Diploma in Emergency Medical Technology course 31st May of every academic year.
8. **COMMENCEMENT OF THE EXAMINATION:** There shall be one University examinations in an academic year i.e. June 1st. If the date of commencement of the examination falls on Saturdays, Sundays or declared Public Holidays, the examination shall begin on the next working day.
9. **WORKING DAYS IN AN ACADEMIC YEAR. :** Each academic year shall consist of not less than 270 working days.
10. **ATTENDANCE REQUIREMENTS FOR ADMISSION TO EXAMINATIONS:** No candidate shall be permitted to appear for the Examination unless he/she put in 85% attendance during his/her period of study and training in the affiliated institution recognized by this University and produces the necessary certificate of study, attendance and progress from the Head of the Institution by maintaining log book.
11. **MAINTAINENCE OF LOG BOOK**
    - ✓ Every Post-graduate Diploma candidate shall maintain a record of skills he has acquired during the one year training period certified by the various Heads of Departments he has undergone training.
    - ✓ The candidates should also be required to participate in the teaching and training programme of the institute.
    - ✓ In addition, the Head of the Department shall involve their post-graduate candidates in Seminars, Journal Clubs, Group discussions and conferences.
    - ✓ The Head of the Department shall scrutinize the Log Book once in every three months.
    - ✓ At the end of the course, the candidate should summaries the contents and gets the Log Book certified by the Head of the Department.
    - ✓ The Log Book should be submitted at the time of practical examination for the scrutiny of the Board of Examiners.
12. **MIGRATION/TRANSFER OF CANDIDATES**

- ✓ A student studying in **POST GRADUATE DIPLOMA IN EMERGENCY MEDICAL TECHNOLOGY**
- ✓ Can be allowed to migrate/transfer to another institution of Allied Health Science under the same or another University.

- ✓ Under extraordinary circumstances, the Vice Chancellor shall have the powers to place any migration/transfer he/she deems fit before the Governing Council and get its approval for grant of permission/ratification for Migration/Transfer to the candidates undergoing the course of study in affiliated institutions of this University.

13. **RE-ADMISSION AFTER BREAK OF STUDY:** The regulations for re-admission are as per the University Common Regulation for Re-admission after break of study for all courses**.**

Post Graduate Diploma in Emergency Medical Technology

Overview of Subjects

Subjects
Paper I- Fundamentals of Emergency medical technology
Paper II- Basics of behavioural Emergences'
Paper III- Ambulance operation & management

Paper I – Fundamentals of Emergency medical technology

I. EMERGENCY MEDICAL TECHNOLOGY - BASICS (Theory)

Module 1: Introduction to Emergency Medical Care

EMSIN Indices - Medical Direction - Communication - Dealing with dying patients and their family members - Improving system quality - Roles and responsibilities- Basic medical terms and principles to evaluate the patient's condition- Universal approach to critical patient care Package Up Patient Algorithm (Transport Protocol).

Module 2: Well - Being of the Emergency Medical Technologist

Introduction - Emotional aspects of Emergency Care - Death and Dying - Stress and Stress Management - Body substance isolation - Scene assessment and safety precautions - Protection from infection - Vaccination - Universal precautions - Personal protective equipment - Work practice controls - Decontamination - Hand washing - Engineering controls - Sharps handling - Warning labels - Exposure labels

Module 3: Medical / Legal & Ethical Issues

Definition of Ethics - Objectives - Patient consent –Relevant legislation, standards, policies and procedures followed in the hospital- Expressed and implied consent - Children and Mentally in competent adult - Refusal of care - Patients decision making capacity - Release from liability - Appeal for the patient to reconsider – Confidentiality

Module 4: The Human Body

Introduction to Anatomy Physiology - Directional terminology - Musculo skeletal system: Microscopic Anatomy, Functions - Bone Formation - Bone Growth - Calcium Homeostasis - Types of bones - Bone markings - Divisions of the skeletal system - Axial skeleton - Appendicular skeleton - Classification of Joint - Classification of movements - Anatomic positions

Muscular system: Types of Muscle tissue - Primary functions of Muscle - Characteristics of Muscle tissue - Cardiac muscle - Skeletal Muscle movements - Smooth Muscle - Types of Muscle contractions - Muscle metabolism - Muscle fatigue - Muscle Architecture

Respiratory System: Nose & Nasal Cavity - The lungs - Gas Exchange - Mechanism of Breathing

Cardiovascular System: Anatomy of heart - Cardiac Cycle - Blood Vessels - Patterns of Circulation - Blood Pressure

Lymphatic System: Immunity - Anatomy of Lymphatic system - Lymphatic fluid - Functions of Lymphatic system - Nonspecific Resistance

Nervous System: Central Nervous System - Peripheral Nervous System - Autonomic Nervous System - Functions of Nervous System - Meniges - Structure of brain - Fore brain (or) Pro encephalon - Mid brain (or) Mesencephalon - Hind brain (or) Rhombeneephalon - Cranial nerves - Spinal nerve

Integumentary system: Layers of the skin - Functions of the skin

Endocrine System: Location of the major endocrine glands - Pituitary Gland - Thyroid& Parathyroid glands - Adrenal glands - Pancreas - Other Endocrine gland

G. I. Systems: Upper GI System - Teeth - Tongue - Swallowing - Salivary glands - Esophagus - Lower GI System - Stomach - Small intestine - Duodenum - Jejunum & Ileum - Pancreas - Liver - Gall bladder - Large intestine - Calcium - Colon - Portal circulation - Homeostasis - Positive feedback - Negative feedback - Fluid & Electrolyte balance

Female Reproductive system: Uterus, Vagina, Foetus, Placenta, Umbilical cord, Amniotic Sac, Perineum

Module 5: Baseline Vital Signs & Sample History

History taking - Vital signs and measurements

Clinical norms for adults and children

With regard to -Temperature, Pulse, Respiration, Blood pressure (non-invasive), Oxygen saturation level AVPU scale, Pulse Oximetry ,Glasgow Coma Scale, Pupil reaction, ECG, Urinalysis, Blood glucose ,Skin color and pallor, Consciousness- Indicators of high risk or life threatening conditions in relation to the parameters listed above

Clinical norms with regard to the following symptoms

Breathlessness, Bleeding and fluid loss, Pain, Tissue trauma Skin rashes/dermatological features Toxic ingestion, Altered consciousness, dizziness, faints and fits, Altered behavior, Fever, A fall, Ear, nose and throat problems

Module 6: Lifting & Moving Patients

Introduction - Lifting techniques - Principles of moving patients - Clothing drag technique - Blanket drag technique - Fire fighter drag technique - Transfer of supine patient from bed to stretcher - Draw sheet carry - Pack strap carry - Cradle carry - Chair carry - Long back board stretcher - Procedure for rapid extrication - Guidelines for moving stretchers - Loading the ambulance - Patient positions: - Recovery position - Position of comfort - Shock position - Skill proper lifting technique.

II. BASICS OF AIRWAY MANAGEMENT (Theory)

Module 1: Basics of Airway Maintenance

Objectives of maintaining airway - Introduction - Anatomy and Physiology of the respiratory system - Opening the upper airway - Indication - Contraindication - Head – Tilt, Chin lift maneuver - Suctioning - Artificial ventilation - Mouth to mask, two person bag valve mask - Flow restricted, oxygen powered, ventilation device, one person bag, valve mask.

Module 2: Advanced Airway

Difference between adult child and infant airways - Anatomic considerations - Indications for advance airway management - Advantages & Disadvantages of endotracheal intubation, - naso - tracheal intubation - Laryngeal Mask airway - Advanced Airways Management – Infants and children - Nasogastric tube insertion

Module 3: ACLS

Chain of survival - Adult cardiac arrest - Defibrillation - Drugs used in Cardiac arrest

III. PATIENT ASSESSMENT (Theory)

Module1: Respond to emergency calls

Collecting relevant information, preparation of ambulance, Knowledge about the emergency codes used in the hospital, Importance of Team work, Roles and responsibilities of Emergency Medical Technician.

Module 2: Scene Size Up

Definition - Advantages of scene size up - Assessment process - Environmental dangers - Safety precautions to be taken at the scene of Emergency-Number of Patients- Additional resources - Mechanism of Injury / Illness - Extrication required - Spinal Precautions-Collaboration with the law.

Module 3: Initial Assessment

Scenario – Compression, Airway, Breathing - Circulation - Airway - Breathing - Altered Mental Status - AVPU Scale

Module 4: Focused History and Physical Examination of Trauma Patient

Patient Assessment - Focused history & Physical examination - Examining Trauma Patients - Detailed vital signs & symptoms - Example – Medical history of patients

Module 5: Focused History and Physical Examination of Medical Patients

Introduction - Examining Medical patients - Detailed vital signs & symptoms - Responsive patients - unresponsive patients - Assess - signs & symptoms, Allergies - Medications - Past Medical history - Last oral intake - Events leading to the incident - Rapid assessment protocol

Module 6: Detailed Physical Exam

Head Assessment - Chest Assessment - Abdominal Assessment - Extremities Assessment

Module 7: On Going Assessment

Repeat initial exam - Ongoing assessment to re – establish priorities

Module 8: Communication

Verbal and Nonverbal communication with responsive patient - Communications take place prior with the receiving facility- Explanation of monetary commitments and insurance procedure.

Module 9: Documentation

Purposes of documentation - Accuracy of documentation - Filling out documents - records and reports maintained in the ambulance - pre hospital documentation- Writing of Patient Care Reports (PCR)

IV. NEONATES, INFANTS, & CHILDREN (Theory)

Module 1: Neonates, Infants, and Children

Introduction, Anatomical considerations - Normal delivery procedure - Pre natal care - Intra natal care - Post natal care - New born care - Abnormal deliveries - Prolapsed cord - Breech delivery - Multiple birth Premature delivery - Assessment of the infant and children- developmental considerations for the age groups of infants, toddlers, pre-school, school age and adolescent – Neonatal Resuscitation.

Module 2: Common Diseases among Infants & Children

Respiratory distress infant and children - Differentiate between respiratory distress and respiratory failure- Airway obstruction, - steps in the management of foreign body airway obstruction- LRI, URI, Bronchiolitis

Module 3: Other medical emergencies

Cardiac arrest - Treating seizures - Shock - Motor vehicle accidents - Other common injuries- Methods of determining end organ perfusion in the infant and child patient - Indicators of possible child abuse and neglect- Medical legal responsibilities in suspected child abuse - Bag-valve-mask artificial ventilations for infants and children- Oxygen delivery for the infant and children - in-line cervical immobilization - Use of medications and doses for paediatric cases.

EMERGENCY MEDICAL TECHNOLOGY - BASICS (Practical)

1. Disinfecting Procedures
2. Baseline Vital Signs 1
3. SAMPLE History
4. Lifting and Loading Patients
5. Wheeled stretcher

6. Portable stretcher
7. Stair chair
8. Scoop stretcher
9. Long spine board
10. Basket stretcher
11. Flexible stretcher
12. Unload Patient
13. Use of Extrication tools
14. Use of personal Protective equipment
15. Hand washing
16. Demonstration of various anatomical structures using charts & models.

BASICS OF AIRWAY MANAGEMENT (Practical)
1. Head-tilt, chin lift
2. Jaw Thrust
3. Suctioning
4. Mouth-to-mouth w/shields
5. Pocket mask
6. Ventilate w/BVM, 1&2 man
7. Ventilate w/BVM & jaw thrust
8. Connect patient to ventilator
9. Ventilate patient w/stoma
10. Insert oral & nasal airways
11. Operate and assembly of oxygen tanks and regulator
12. Pulse Oximetry
13. Use of Non-rebreather face mask w/flow rate
14. Use of Nasal cannula w/flow rate
15. Assist with Endotracheal intubation
16. Assist with Rapid sequence intubation
17. Perform endotracheal intubation
18. Defibrillation

INFANTS & CHILDREN (Practical)
Assessment of infant/child
Removal of foreign body – infant/child
BVM ventilation for infant/child
Oxygen delivery for infant/child
Neonatal Resuscitation

REFERENCES
1. Edgerly D.C., (2009). EMT Prehospital Care 4th Ed, Elsevier Health Sciences
2. Diaz S.E.,(2005). The Little Black Book of Emergency Medicine 2nd Ed, Jones & Bartlett Learning
3. Rosen, P., et al, (2012). Ethical Problems in Emergency Medicine: A Discussion-based Review John Wiley & Sons
4. Nutbeam T., (2012) Abc of Prehospital Emergency Medicine John Wiley & Sons Incorporated
5. Fulde, G. W. O., (2009) Emergency Medicine: The Principles of Practice 5th Ed Elsevier Australia
6. Paul A., (2003) Anatomy Simplified for Nursing & Paramedical Students BI Publications
7. Ranganath P.,(2008). Basics in Human Anatomy for Bsc Paramedical Courses Jaypee Brothers Publishers

Paper II- Basics of Behavioural Emergencies

I. TRAUMA (Theory)

Module 1: Bleeding and Shock

Introduction, Differentiate between arterial, venous and capillary bleeding - Methods of emergency medical care of external bleeding -Relationship between body substance isolation and bleeding - Relationship between airway management and the trauma patient- Signs of internal bleeding - Emergency medical care in internal bleeding - Transfer of the patient with bleeding.

Shock - Signs and symptoms of shock (hypoperfusion) -Shock categories & appropriate Medical Management, - Different procedure for management of bleeding and shock, its significance.

Module 2: Soft Tissue Injuries

Introduction - Relationship between body substance isolation (BSI) and soft tissue injuries- Types of closed soft tissue injuries- Emergency medical care of the patient with a closed soft tissue Injury- Types of open soft tissue injuries- Emergency medical care of the patient with an open soft tissue Injury- Emergency medical care considerations for a patient with a penetrating chest injury & Open wound to the abdomen-Differentiate the care of an open wound to the chest from an open wound to the abdomen- Emergency medical care of a patient with an impaled object- Emergency medical care of a patient with an amputation-Wound healing.

Module 3: Burns

Classification of burns and its characteristics- Emergency care of patients with different types of burns- Emergency care for a chemical burn- Emergency care for an electrical burn- Functions of dressing and bandaging- Purpose of a bandage- Steps in applying a pressure dressing- Ramifications of improperly applied dressings, splints and tourniquets- - Method for applying a universal dressing, adhesive type dressing- Proper method for applying bandages: self-adherent, gauze rolls, triangular, adhesive tape, and air splints- Inhalation injury and emergency care

Module 4: Musculo Skeletal Care

Injuries to bones and joints, signs and symptoms- Signs of open and closed type bone and joint injuries - Assessment of an injured extremity -Differentiate between an open and a closed painful, swollen, deformed extremity - Manage musculoskeletal injuries including thoracic and abdominal injuries- Reasons for splinting- General rules of splinting- Ramification & complications of splinting- Emergency medical care for a patient with a painful, swollen, deformed extremity- Emergency care of bone or joint - Injuries , splinting fracture, dislocation- Application of pelvic binder techniques for fracture of pelvis - Assess neuro-vascular status of limbs- Manage bleeding complications associated with long bone fractures.

Module 5: Injuries to the Head & Spine

Spinal injuries - method of determining if a responsive patient may have a spine- - Neurologic injury – Assessing the potentially spine – Injured patient, Emergency - Medical care for spinal injuries, spinal immobilization - Stabilization of the cervical spine- Log roll a patient with a suspected spine injury-Long and Short spinal board-Indications and steps in performing rapid extrication-Procedure for stabilizing the patient using helmets- Basic trauma life support, primary survey, BTLS patient assessment, rapid trauma survey- Immobilization of paediatric and geriatric victims- Management of scalp bleeding- Management of Eye injury.

II. MEDICAL / BEHAVIOURAL EMERGENCIES & OBSTETRICS AND GYNAECOLOGY (Theory)

Module 1: General Pharmacology

Define pharmacology - pharmacokinetics - basic concepts in pharmacology - dose - routes of administration - half life - drug interactions - overdose - side / adverse reactions - Various classification of drugs - Drugs commonly used by the EMT - The classification of drugs commonly used - action - dosage

- routes of administration - nitroglycerine - noradrenaline - adrenaline - atropine - bronchodilators - oxygen - glucose activated charcoal - IV fluid constitution & classification - indications for administering of fluids.

Module 2: Respiratory Emergencies

Introduction - Terminology - Focused history and physical examination- Assessment of Respiratory status - Auscultation of breath sounds -Signs of abnormal breathing- Characteristics of abnormal breath sounds & Irregular Breathing patterns - HyperCarbia - Hypoxic Drive - Metabolic Problems affects respiration - Airway obstruction - COPD - Congestive heart failure - Pneumonia - Pneumothorax - Pulmonary Embolism - - Suction - Assisted ventilation - Oxygen delivery- Various types of Metered Dose Inhalers and its contraindications and side effects.

Module 3: Cardiovascular Emergencies

Introduction - Types of Cardiovascular Emergencies - Hypertension - Arteriosclerosis - Aneurysm - Deep vein thrombosis - Peripheral vascular disease - Raynauds disease - Buerger's disease - Aortic Dissection - Coronary Artery disease - Clinical forms of coronary artery disease - Chronic Ischemic Heart disease - Acute coronary syndromes - Sudden cardiac death - Angina pectoris - Physical Examination - Laboratory studies - Treatment - Steps in emergency response to heart ischemic - Reassurance and guidance - Medications - Life style changes - CABG - Treatment Associated Diseases - Inflammatory Disorders: Pericarditis - Endo Carditis - MyoCarditis - Valvular Disease - Heart Failure - Cardiac Tamponade - Cardio Myopathy - Cardiac conduction disorders - Focuses Assessment - Diagnosis of cardio vascular system - Vital Signs - Respiration - Pulse - Pulse oxymetry - Blood pressure - Skin condition - ECG - Three lead ECG - 12 lead ECG - Physiology of Cardiac Condition - How to read an ECG strip - Cardiac arrhythmias, Abnormal ECGs – Junctional Disarrythmias, Ventricular Tachycardia, A-V Block - 2nd Degree, Bundle Branch Block, Ventricular Fibrillation, Procedures - Return of Circulation Post Shock Delivery - Environments Requiring Caution - Manual Defibrillation - Cardioversion - Temporary Pacing - Transcutaneous Pacing - Medical Management of Cardiovascular diseases - Cardio vascular drugs

Module 4: Diabetes / Altered Mental Status

Overview of DM - Epidemiology of type I diabetes - Risk factors - Family history - Normal physiology of glucose regulation - Pathology of Type – I DM - Diagnosis of Type I DM - Clinical examination of the patient with Type I DM - Symptoms of Type, Diabetes - Diagnostic tests -various possible types of diabetic emergencies - Primary goals of therapy - Diet - Physical activity - Rationale & Steps in administering oral glucose -Managing Blood glucose levels - Insulin therapy - Dosage - Administration - Complication of Type I DM - Diabetic Ketoacidosis - Altered Mental status - Acidosis / Alcohol / Epilepsy / Infection, overdose, underdoes, trauma, tumours, insulin, psychosis, poisoning,

Module 5: Management of Stroke

Basic types, causes, and symptoms- Emergency medical care to a patient experiencing symptoms of a stroke- Physical Examination- Assessment of the patient's level of consciousness - Assess vital signs- Pre-hospital stroke scale assessment such as the Cincinnati pre-hospital stroke scale- Focused history- First triage of potential stroke victims-Fibrinolytic Therapy

Module 6: Manage severe abdominal pain

Focused history and physical exam **-** Recognize the symptoms and cause of visceral pain, parietal pain, referred pain including Right shoulder, Left shoulder, Midline, back pain, Mid-abdominal pain, Lower abdominal pain, Sacrum pain, Epigastrium pain, and Testicular pain-Management of severe abdominal pain.

Module 7: Allergies

Introduction, Definition, Triggers - Signs and symptoms, differential diagnosis & management - Allergic reaction, emergency response algorithm - Drugs and their delivery-Pre hospital care report for patients with allergic reactions.

Module 8: Poisoning / Overdose

Introduction - Routes of exposure - Poison information centers - General principles of Toxicologic management, scene survey, Primary and secondary - Survey, ingested poisons, general assessment,

physical examination. - General Management of toxic inhalations, General principles of Management, drug overdose &substance abuse, alcohol abuse.

Module 9: Environmental Emergencies

Introduction, Terminology - Heat production, Metabolism, Shivering, Exercise, External heat sources - Factors that affect Heat Production, Core Temperature, Medical Condition, Body fluid - Status, drugs and chemicals, - Heat loss, Mechanism, Conduction, Convention, Radiation, Evaporation, Heat Stroke, - Heat Exhaustion- Hypothermia- Signs and symptoms of water related emergencies, Complications of near drowning –Emergency medical care for bites and stings- Various relevant National Disaster Management Agencies (NDMA).

Module 10: Behavioural Emergencies

Introduction, Assessing Behavioural Emergency, Depression, Insomnia, - Grief Reaction, Sexual Assault, Manic Disorders, Psychosis, Schizophrenia, Delerium Tremens - Medical management and pharmacological management- Methods of Physical Restraint.

Module 11: Obstetrics & Gynaecology

Introduction, Terminology - Physiological changes during pregnancy - Gynaecology – Menstrual cycle, use of the contents of an obstetrics kit - pre-delivery emergencies - PID - Obstetrics – Foetal development, Abruptio placenta, placenta Previa, Hypertension- Indications of an imminent delivery - Differentiate the emergency medical care provided to a patient with pre-delivery emergencies from a normal delivery - Steps in pre-delivery preparation of the mother - Relationship between body substance isolation and childbirth - steps to assist in the delivery - Steps required for care of the baby as the head appears - Cutting the umbilical cord- steps in the delivery of the placenta- emergency medical care of the mother post-delivery- procedures for the following abnormal deliveries: Breech birth, multiple births, prolapsed cord, limb presentation-Meconium-special considerations of a premature baby-emergency medical care of a patient with a gynaecological emergency-steps required for emergency medical care of a mother with excessive bleeding- emergency care during childbirth-. - Emergency child birth and care of infant and care of the mother.

Module 12: Geriatric care

Introduction, Terminology - Cardiovascular disorders in aging - Neurovascular disorder in aging, Delirium, strokes, Parkinson's disease - Endocrine system – Diabetic issues, Hypothyroidism - Musculoskeletal disorders in aging - Other genetic issues – Trauma, Elder abuse

TRAUMA (Practical)

1. Assessment of a trauma patient
2. Hypo perfusion treatment
3. Pneumatic Anti - Shock Garment (PASGT) /MAST Application
4. Management of Closed & open soft tissue injuries
5. Management of Open chest wound
6. Management of Open abdominal wounds
7. Management of Impaled object
8. Management of Amputation & amputated part
9. Management of Burns
10. Management of Musculoskeletal injuries
11. Spine - immobilization
12. Application of splints & neck collar
13. Rapid extrication
14. Helmet

MEDICAL / BEHAVIOURAL EMERGENCIES & OBSTETRICS AND GYNAECOLOGY (Practical)

1. Administering Emergency Cardiac drugs - Eg: Aspirin
2. Assist w/ inhaler
3. Perform AED
4. Administer Nitroglycerin
5. Monitor blood glucose using Glucometer
6. Administer Oral glucose
7. Administration of Epinephrine auto-injector
8. Universal antidote administration - Activated charcoal
9. Treatment of contact poisons
10. Management of Hyperthermia &Hypothermia, Frostbite and cold injuries
11. Application of Restraints
12. Infant delivery and care
13. Obtaining a 12 lead ECG
14. Monitoring of Vital signs
15. Interpretation of ECG & Identification of arrhythmias
16. Starting IV line
17. Starting IV line and IV access in a moving vehicle

10. Grossman, S., Rosen P., (2012) Cardiovascular Problems in Emergency Medicine: A Discussion-based Review, 2nd Ed, John Wiley & Sons

REFERENCES

1. Greaves, I., Hodgetts T.J., Porter K., (2006) Emergency Care: A Textbook for Paramedics 2nd Ed Elsevier Health Sciences
2. American Academy of Orthopedic Surgeons (2010) , Emergency Care and Transportation of the Sick and Injured 10th EdJones & Bartlett Learning
3. Alton L. Thygerson,Gulli,B, Krohmer, J.R., (2007), First Aid, CPR, and AED 5th Ed, Jones & Bartlett Learning
4. Mistovich, J.J., Hafen,Q. B., Karren,J.K., Werman H.A.,(2008) Prehospital emergency care 8th Ed Brady/Prentice Hall Health
5. Limmer D., (2003) Emergency care, Prentice-Hall

Paper III- Ambulance operation & Management

AMBULANCE operation and management (Theory)

Module 1: Ambulance Operations

Introduction, Phases of an Ambulance Call - Ambulance Equipment requirement - Airway and ventilation equipment - Immobilization devices - Bandages - Communications - Obstetrical Kit, Injury prevention equipment - Miscellaneous, Vascular Access, Cardiac - Infection control, other advance equipment - Medications - Personal protective equipment - Principles of transport - ECG Monitoring- Decision making on routes and medical equipments and supplies to store.

Module 2: Gaining Access

Definition of Extrication - Purpose and scope - Stages of extrication Preparation - En route to the scene - Arrival and scene size-up - Hazard control - Support operations - Gaining access - Emergency care - Disentanglement - Removal and transfer - Termination- Tools used on the extrication process- Crowd Management.

Module 3: HAZMAT

Introduction - types of Hazardous material, dealing with different types of hazardous material- EMT safety - Decontamination, Patient special needs, -

Module 4: Disaster Management

Disaster planning – Role of hospitals in cases of natural calamities -Triage - the process of triage - Categorization of patient- SALT method- START method- Documentation-Managing mass casualty incidents-Management of Fire in hospitals- Various codes used in hospitals

Module 5: Select the proper provider institute for transfer

List of institute's available-Procedure of selection- decision making- Recording of the decision

Module 6: Transport patient to the provider institute

Module 7: Manage patient handover to the provider **institute**

Module 8: Collate and Communicate Health Information

Guidelines on communicating with individuals- Guidelines on maintaining confidentiality and respecting need for privacy – Handling of stressful or risky situations

Module 9: Act within the limits of one's competence and authority

Knowing one's job roles and responsibilities- recording and reporting

Module 10: Manage work to meet requirements & Maintenance of a safe, healthy, and secure working environment

AMBULANCE OPERATIONS (Practical)

1. Use of extrictors in rescuing patients
2. Triaging of a patient
3. Maintenance and set up of ambulances
4, Log book maintenance of the ambulance
5. Stock checking and maintenance of equipment in the ambulances

REFERENCES

1. Greaves, I., Hodgetts T.J., Porter K., (2006) Emergency Care: A Textbook for Paramedics 2nd Ed Elsevier Health Sciences
2. American Academy of Orthopedic Surgeons (2010) , Emergency Care and Transportation of the Sick and Injured 10th EdJones & Bartlett Learning
3. Mistovich, J.J., Hafen,Q. B., Karren,J.K., Werman H.A.,(2008) Prehospital emergency care 8th Ed Brady/Prentice Hall Health

4. Nutbeam T., (2012) Abc of Prehospital Emergency Medicine John Wiley & Sons Incorporated
5. Fulde, G. W. O., (2009) Emergency Medicine: The Principles of Practice 5th Ed Elsevier Australia

Scheme of Examination

Paper	Subject	Internal assessment		Theory exam		Practical exam		Viva	
		Max	Min	Max	Min	Max	Min	Max	Min
I	Fundamentals of Emergency medical technology	50	25	100	50	100	50	50	25
II	Basics of behavioural Emergences	50	25	100	50	-	-	-	-
III	Ambulance operation & Management	50	25	100	50	-	-	-	-

Distribution of the theory Marks

Type of Questions	Distribution of marks	Total Marks
Long Essays	2 x 20	40
Short Notes	10 x 6	60
Total		**100**