Rajiv Gandhi University of Health Sciences, Karnataka

M. D. Degree Examination – 02-Jan-2025

Time: Three Hours **Max. Marks: 100 Marks**

EMERGENCY MEDICINE
PAPER – I (RS-2/RS-3)
Q.P. CODE: 7511

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary.

Answer All The Questions **10 x 10 = 100 Marks**

1. Describe the anatomy of a typical nephron with diagram
2. Discuss the physiology of nerve conduction and the mechanism of action of local anesthetic agents
3. Mechanisms of action, pharmacodynamic and pharmacokinetics of norepinephrine
4. Role of potassium in glucose metabolism. Describe briefly
5. Explain temperature regulation in the human body
6. Explain the role of hemoglobin in oxygen delivery
7. Explain a case – control study design. What are the advantages and disadvantages?
8. Mechanism of action and side effects of anti-tubercular medication
9. Explain the physics of Magnetic Resonance Imaging
10. Explain the physiological principles of plasma exchange

M. D. Degree Examination – 04-Jan-2025

Time: Three Hours **Max. Marks: 100 Marks**

EMERGENCY MEDICINE
PAPER – II (RS-2/RS-3)
Q.P. CODE: 7512

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary.

Answer all the questions **10 x 10 = 100 Marks**

1. Pathophysiology, clinical features, diagnosis and treatment of a patient presenting with delirium in ED.
2. Discuss the types of fractures. Describe the ED evaluation and management of patient with fracture of the Femur.
3. Management of herbicide poisoning.
4. I - gel
5. Maxillofacial injuries
6. Resuscitation of a burns patient
7. Acute monocular blindness
8. Pre hospital equipment and adjuncts
9. Injection drug users
10. Acute asthma exacerbation, clinical features and management.

Rajiv Gandhi University of Health Sciences, Karnataka

M. D. Degree Examination – 06-Jan-2025

Time: Three Hours **Max. Marks: 100 Marks**

EMERGENCY MEDICINE
PAPER – III (RS-2/RS-3)
Q.P. CODE: 7513

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary.

Answer All The Questions **10 x 10 = 100 Marks**

1. How would you clinically recognize and manage Life threatening chest injuries in the ED? What is the role of ultrasound in its assessment?
2. Classify burns. Discuss its management.
3. Fat embolism.
4. Management of status epilepticus in children.
5. Assessment of nerve injuries to upper limb.
6. Shoulder dislocation – its types and management in the ED.
7. Evaluation of pain abdomen in ED.
8. Altered mental status in children.
9. Resuscitation issues in Pregnancy.
10. Functional dysrhythmias.

M. D. Degree Examination – 08-Jan-2025

Time: Three Hours **Max. Marks: 100 Marks**

EMERGENCY MEDICINE
PAPER – IV (RS-2/RS-3)
Q.P. CODE: 7514

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary.

Answer All The Questions **10 x 10 = 100 Marks**

1. Low Titre-O Whole blood (LTOWB) transfusion
2. March protocol
3. What are the medical issues in a morbidly obese patient?
4. Pathophysiology and management of panic attacks.
5. Pre-hospital plasma for Hemorrhagic shock
6. Tumour lysis syndrome.
7. Balanced crystalloids
8. Pediatric DKA management protocol.
9. Ultrasound vs CT for nephrolithiasis
10. Procalcitonin for sepsis screening in the ED

Rajiv Gandhi University of Health Sciences, Karnataka

M. D. Degree Examination – 26-May-2025

Time: Three Hours **Max. Marks: 100 Marks**

EMERGENCY MEDICINE
PAPER – I (RS-2/RS-3)
Q.P. CODE: 7511

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary.

Answer All The Questions **10 x 10 = 100 Marks**

1. Intraosseous Cannulation –site, device, indications, complications.
2. Renal function tests and its interpretation in acute renal failure
3. Describe potassium hemostasis. What are the ECG changes and management of Hypokalemia?
4. Cross sectional study design explain briefly. Discuss advantages and disadvantages
5. Pathophysiology of uremia
6. Anatomy of Hip joint and its examination
7. Physiological principles of sepsis biomarkers
8. Explain magnesium sulfate: mechanisms of action, pharmacodynamic and pharmacokinetics
9. Normal blood pressure regulation
10. Cortisol physiology and biochemistry

M. D. Degree Examination – 28-May-2025

Time: Three Hours **Max. Marks: 100 Marks**

EMERGENCY MEDICINE
PAPER – II (RS-2/RS-3)
Q.P. CODE: 7512

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary.

Answer all the questions **10 x 10 = 100 Marks**

1. Describe the etiology, clinical features, differential diagnosis and ED management of tetanus. Add a note on tetanus prophylaxis after a trauma.
2. What are the causes and clinical features of cardiogenci shock? How will you evaluate and manage in ED?
3. A 50-year old male patient who is a known case of cirrhosis presented with fever and diffuse abdominal pain. On examination guarding is noted in all abdominal quadrants. What is the probable diagnosis and how will you manage?
4. Interpret the following data using appropriate strategy. p^H-7.1, P_{co2}-28, bicarbonate -10, sodium -140, Potassium -6, Chloride -90. What is the probable acid-base and metabolic abnormality? What are the causes and how do you manage in ED?
5. What are the causes of fever with a rash in children? Describe clinical features, management and complications of measles.
6. Enumerate the differences between pediatric and adult airway. What are the specific factors to be considered pediatric airway management?
7. How will identify the bitten snake based on clinical features. Explain the management of hematological manifestations of snake bite.
8. A group of 5 children presented to emergency after a possible ingestion of fruits from a bush. They were agitated, running high temperatures with flushed face. Heart rates were well above 150 beats per min. List the possible causes for the illness and ED management of the illness.
9. What are the complications of malaria? How will you manage a patient with suspected complicated malaria?
10. Evaluation of fever of unknown origin and its management in the ED.

Rajiv Gandhi University of Health Sciences, Karnataka

M. D. Degree Examination – 30-May-2025

Time: Three Hours **Max. Marks: 100 Marks**

EMERGENCY MEDICINE
PAPER – III (RS-2/RS-3)
Q.P. CODE: 7513

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.

Answer All The Questions **10 x 10 = 100 Marks**

1. A 35 year old male drive of a car met with road traffic accident. He was conscious, oriented, tachypnoeic with seat belt mark across the chest and abdomen. BP-100/60mm of Hg, HR-100/minute and saturation 80% on room air. Discuss the possible injures and management.
2. How would you approach and manage a 30 year old female of 80% kgs weight with 60 percent thermal burns.
3. Surgical airway.
4. TILE's classification of pelvic fractures.
5. Emergency room stabilization and treatment in spinal cord injury.
6. Pain relief in trauma.
7. Post partum haemorrhage.
8. Golden hour in trauma, with prognostication and various scoring systems used in ER in trauma.
9. Supracondylar fracture of humerous.
10. Massive transfusion protocol.

M. D. Degree Examination – 02-Jun-2025

Time: Three Hours **Max. Marks: 100 Marks**

EMERGENCY MEDICINE
PAPER – IV (RS-2/RS-3)
Q.P. CODE: 7514

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary.

Answer All The Questions **10 x 10 = 100 Marks**

1. Outline the management of exposure to blood, body fluids and needle stick injury.
2. Neuroimaging for a patient with suspected subarachnoid hemorrhage
3. Monkey pox: Clinical features, diagnosis and treatment
4. Explain the immediate complications of blood transfusion and management.
5. Initial evaluation and general management of dermatologic emergencies.
6. Define unhealthy alcohol use and explain ED alcohol screen.
7. Diagnosis, treatment and disposition of elder abuse.
8. Classify anemias and explain ED management of severe anaemia.
9. Role of subcutaneous insulin in DKA
10. Explain tactical combat casualty care.

Rajiv Gandhi University of Health Sciences, Karnataka

M. D. Degree Examination – 24/Sep/2025

Time: Three Hours **Max. Marks: 100 Marks**

EMERGENCY MEDICINE
PAPER – I (RS-2/RS-3)
Q.P. CODE: 7511

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary.

Answer All The Questions **10 x 10 = 100 Marks**

1. Classify local anesthetics. Describe the mechanism of action of lignocaine
2. Define anion gap. What are the causes of wide, normal and low anion gap metabolic acidosis?
3. Explain Levetiracetam: mechanisms of action, pharmacodynamic and pharmacokinetics
4. Describe normal coagulation pathway
5. Describe mechanism of normal labor
6. Classification of anti-arrhythmic medications
7. Describe a Cohort study. What are the advantages and disadvantages of this study design? Differentiate between prospective and retrospective cohort studies
8. Anatomy of knee joint. Add a note on Ottawa ankle/knee rules
9. Describe the formation of CSF. Mention indications and describe how LP can be performed safety
10. Mallampati and Cormack Lehane. Classification and clinical implications

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M. D. Degree Examination – 26/Sep/2025

Time: Three Hours **Max. Marks: 100 Marks**

EMERGENCY MEDICINE
PAPER – II (RS-2/RS-3)
Q.P. CODE: 7512

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary.

Answer All The Questions **10 x 10 = 100 Marks**

1. Describe the Neurological emergencies in Acquired Immune Deficiency Syndrome.
2. Discuss the clinical features, laboratory studies and imaging in small bowel obstruction.
3. Risk stratification of Acute coronary syndrome based on ECG.
4. Indications, advantages and common pitfalls of End Tidal Carbon dioxide monitoring.
5. What are the causes and complications of Acute Hepatitis? How do you clinically stages Hepatic encephalopathy?
6. Algorithm for Newborn Resuscitation.
7. Describe the predominant causes of stridor in infants aged less than 6 months of age.
8. Intubation and initial Ventilatory strategy in respiratory failure due to Bronchial Asthma.
9. Classify Cold injuries. List the ECG changes and rewarming techniques in cold injuries.
10. Prognostic value of Lactate levels and Shock index in non-trauma patients.

Rajiv Gandhi University of Health Sciences, Karnataka

M. D. Degree Examination – 29/Sep/2025

Time: Three Hours **Max. Marks: 100**

EMERGENCY MEDICINE
PAPER – III
Q.P. CODE: 7513

Your answers should be specific to the questions asked.
Draw neat, labeled diagrams wherever necessary.

Answer All The Questions **10 x 10 = 100 Marks**

1. A 30 year old patient presented to ED with history of fever, productive cough with mucopurulent sputum and breathlessness. What is the probable the diagnosis, etiology? Add notes on diagnostic strategy and risk stratification.

2. A 25 year old female patient has presented to ED with lower abdominal pain, scant vaginal bleeding. Her vitals at the time of presentation were PR-110/min, BP-80/50 mm Hg with a respiratory rate of 30. What is the differential diagnosis and how will you manage.

3. Pathophysiology and ED management of blunt cardiac trauma.

4. Pathophysiology and management of respiratory failure in Guillian-Barre syndrome.

5. List the red-flag signs in suspected spinal cord injury? How do you manage a traumatic paraplegia in the ED?

6. Write briefly essay on injuries around the knee joint and their identification and management in the ED.

7. Mechanisms, classification and ED management of facial fractures.

8. Indications, contraindications, complications and procedure of intercostal drainage insertion.

9. Mechanism, diagnosis, classification and ED management of renal trauma.

10. What are the emergency complications of systemic rheumatic diseases?

M. D. Degree Examination – 03/Oct/2025

Time: Three Hours **Max. Marks: 100**

EMERGENCY MEDICINE
PAPER – IV
Q.P. CODE: 7514

Your answers should be specific to the questions asked
Draw neat, labeled diagrams wherever necessary.

Answer all the questions **10 x 10 = 100 Marks**

1. Explain SGARBOSSA rule for Left Bundle Branch Block (LBBB)
2. Explain the Erasmus Guillain–Barre Syndrome(GBS) Respiratory Insufficiency Score (EGRIS)
3. What are the emergency complications of malignancy?
4. Inhaled fentanyl : Uses, dosage and administration in the ED
5. How do you approach a violent patient in ED?
6. Tranexamic acid in traumatic brain injury
7. PECARN rule for pediatric head injury
8. Crossover study designs
9. Informed consent.
10. Thromboelastogram.

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