

QP Code: _____

Reg. No.: _____

PG Degree Examination in Emergency Medicine (MD)

Paper I Basic Sciences

(Anatomy, Physiology, Biochemistry, Microbiology, Pathology, Research Methodology and Statistics)

Time: 3 hrs

Max marks: 100

Draw tables, diagrams, or flow charts wherever necessary.

Essay: (20)

1. Discuss the normal cardiac conduction system. Discuss indications and techniques of emergency pacing.

Short essays: (8 x 10 = 80)

2. Describe the anatomy of the airway. Add a note on its relevance in airway management in emergency medicine.
3. Explain the physiology of shock. Discuss the different types of shock and their compensatory mechanisms.
4. Discuss the pathophysiology of sepsis. Add a note on inflammatory mediators and organ dysfunction.
5. Describe the microbiology of hospital-acquired infections. Add a note on antimicrobial resistance relevant to emergency care.
6. Describe renal physiology. Discuss fluid and electrolyte imbalance in emergency conditions.
7. Discuss wound healing. Add a note on factors affecting healing in trauma patients.
8. Describe types of study designs. Add a note on bias and confounding.
9. Define sensitivity, specificity, positive predictive value, and negative predictive value. Discuss their clinical application in emergency medicine.