

EMERGENCY MEDICINE

PAPER – I

EM.MED/D/16/52/I

Time : 3 hours

Max. Marks : 100

Important instructions:

- Attempt all questions in order.
- Each question carries 10 marks.
- Read the question carefully and answer to the point neatly and legibly.
- Do not leave any blank pages between two answers.
- Indicate the question number correctly for the answer in the margin space.
- Answer all the parts of a single question together.
- Start the answer to a question on a fresh page or leave adequate space between two answers.
- Draw table/diagrams/flowcharts wherever appropriate.

Write short notes on:

1. a) Illustrate with the help of a labelled diagram the conducting system of the heart. 3+3+4
b) What are the different mechanisms of tacharrhythmias?
c) Classification of anti-arrhythmic agents.
2. a) Sodium homeostasis. 4+3+3
b) Mention various causes of hypernatremia.
c) Pathophysiology of clinical effects of hypernatremia.
3. a) Anatomy of wrist and hand as relevant to emergency physician. 4+3+3
b) Nerve supply of various muscles of hands.
c) Action of various muscles of hand.
4. a) Kassirer-Bleich equation. 2+3+2+3
b) How does the kidney regulate acid-base balance?
c) Define anion gap and mention its clinical use.
d) Enumerate cause of metabolic acidosis.
5. a) Non-invasive oxygen and carbon dioxide monitoring. 4+3+3
b) Oxygen-hemoglobin dissociation curve.
c) What is the utility of end-tidal CO₂ during cardio-pulmonary resuscitation?
6. a) Name three low-molecular heparins alongwith their doses. 3+3+4
b) Mechanism of action of unfractionated and low-molecular weight heparin.
c) Methods to monitor therapy with unfractionated heparin.
7. a) Classify various antimicrobial agents. 4+2+2+2
b) Mechanism of action of penicillins.
c) Adverse effects of penicillins.
d) What are the adverse effects of aminoglycosides?

P.T.O.

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8. a) What are the diseases produced by various species of Clostridium? 3+4+3
b) Pathogenesis of tetanus.
c) Tetanus prophylaxis following an injury.
9. a) Common causes and pathophysiology of anaphylaxis. 5+3+2
b) Clinical criteria for its diagnosis.
c) Write about 2 drugs used as first-line therapy.
10. a) Pathophysiology and diagnostic criteria of diabetic ketoacidosis. (4+3)+3
b) Mention important laboratory tests to be done in a case of suspected diabetic ketoacidosis.
