

IAS Mains Medical Science 1996

Paper I

Section A

1. Answer any three of the following (each in about 200 words):
 - a. Write in brief about chemical carcinogens (20).
 - b. Write briefly about the diseases caused by Epstein-Barr virus (20).
 - c. Discuss the calcium-phosphorus homeostasis in human body and disorders associated with it (20).
 - d. Describe with diagrams the procedure of determining the sex from hair (20).
 - e. Classify general anaesthetics. Write about the theories of anaesthesia, route of administration and important side-effects of the most commonly used anaesthetic (20)
 - f. Give a brief account of the nerves supplying the eyeball (20).
2. Answer the following questions
 - a. Describe the sequence of events during impulse transmission of neuromuscular junction. How can neuromuscular junction be blocked (20)?
 - b. Describe the reciprocal regulation of glycogen synthesis and its breakdown in liver (20).
 - c. Describe the topographical anatomy of uterus. Give an outline of its development. What are its common congenital anomalies (20)?
3. Answer the following questions
 - a. Define hypoxia and classify its types. What are the physiological factors causing hypoxia? Discuss the role of oxygen in each type (20).
 - b. Explain why excessive intake of fat soluble vitamins is toxic as compared to the water soluble vitamins. Describe the biochemical role of vitamin A (20)
 - c. Write short notes on:
 - i. Right atrium of heart.
 - ii. Synovial membrane (20).

Section B

Pathology & Microbiology

1. Answer the following questions
 - a. Define peptic ulcer. Write in brief about its pathogenesis and histopathology (30).
 - b. Describe briefly about the pathogenesis of staphylococcus aureus (30).
2. Answer the following questions
 - a. Classify carcinoma of the breast and write in brief about histopathology of each type (30).

- b. Define cholera. Describe briefly its epidemiology and laboratory diagnosis (30).

Section C

Pharmacology Forensic Medicine & Toxicology

1. Answer the following questions

- a. Write the mechanism of action, side effects and therapeutic uses of chloroquine. Describe its doses in clinical cure of malaria (20).
- b. What are the indications, contra-indications and side effects of Vincristine (20)?
- c. Describe the mode of action and therapeutic use of Rifampicin with doses in adult patients.

Mention its important adverse effects (20).

2. Answer the following questions

- a. Define bruise. Describe the method of aging of bruise and its medico-legal significance (30).
- b. How will you confirm a stain to be of blood and determine its species origin (30)?