

MEDICAL SCIENCE (Paper I)

Time Allowed : Three Hours

Maximum Marks : 300

QUESTION PAPER SPECIFIC INSTRUCTIONS

(Please read each of the following instructions carefully before attempting questions)

Question No. 1 is compulsory.

Candidate has to attempt FIVE questions in all, selecting the remaining questions from the Sections that follow, as directed in the paper.

The number of marks carried by a question/part is indicated against it.

Wherever any assumptions are made for answering a question, they must be clearly indicated.

Word limit in questions, wherever specified, should be adhered to.

SECTION 'A'

1. Answer any three of the following (each in about 200 words):
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| (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, root 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. (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. (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'

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| 4. (a) | Define peptic ulcer. Write in brief about its pathogenesis and histopathology. | 30 |
| (b) | Describe briefly about the pathogenesis of staphylococcus aureus. | 30 |
5. (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'

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| 6. (a) | Write the mechanism of action, side effects and therapeutic uses of chloroquine. Describe its doses in clinical cure of malaria. | 20 |
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| | (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 |
| 7. | (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 |