

**M.D. (ANAESTHESIA):** *Winter-2022*  
**SUBJECT: PAPER-I**  
**BASIC SCIENCES AND PRINCIPLES AS APPLIED TO ANAESTHESIOLOGY**

Day : Friday

Time : 01:30 PM-04:30 PM

Date : 16-12-2022

**W-722-2022**

Max. Marks : 100

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**N.B.:**

- 1) Draw Diagrams **WHEREVER** necessary.
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**Long Questions**

**(15 Marks Each)**

- Q.1** Describe functional anatomy of autonomic nervous system and discuss noninvasive tests for assessing functions of autonomic nervous system.
- Q.2** What is capnography? Draw a neat diagram of a normal capnograph and describe role of capnography during administration of anaesthesia.

**Semi-Long Questions (Answer ANY SEVEN)**

**(10 Marks Each)**

- Q.3** Describe 'Desensitisation Block'.
- Q.4** Describe 'Extra hepatic drug metabolism'.
- Q.5** Discuss effect of inhaled anaesthetics on broncho motor tone in humans.
- Q.6** Describe Hyderabad Chloroform commission I & II.
- Q.7** What is P50? Draw oxygen haemoglobin dissociation curve and describe the factors influencing the change of P50.
- Q.8** Describe the pressure and volume changes during different phases of normal cardiac cycle with illustrations.
- Q.9** Discuss methods of detecting leaks and disconnections of workstation during the course of anaesthesia.
- Q.10** Routs of administration of fentanyl and their pharmacological basis, advantages, disadvantages.

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