

(LC 145)

APRIL 2013

Sub. Code: 2040

**M.D. DEGREE EXAMINATION**

**BRANCH X –ANAESTHESIOLOGY**

**APPLIED BASIC SCIENCES RELATED TO ANAESTHESIA INCLUDING  
PHYSICS IN ANAESTHESIA, HISTORY OF ANAESTHESIA**

*Q.P.Code: 202040*

**Time: Three Hours**

**Maximum: 100 marks**

**I. Elaborate on:**

**(2X15=30)**

1. Describe the physiological changes associated with different postures during anaesthesia.
2. Describe the anatomy and electrophysiology of cardiac pacemakers and the conduction systems. Give an account of the anti-arrhythmic drugs.

**II. Write notes on:**

**(10X7=70)**

1. Definition, measurement and significance of closing capacity.
2. Safety mechanisms to prevent the delivery of hypoxic mixture in anaesthesia machines.
3. Classification of anaesthesia breathing systems
4. Mechanisms and effects of the Pressurising and pumping effect.
5. Definition, advantages, problems and management of Low flow anaesthesia.
6. Effects of the Valsalva maneuver and its uses in anaesthesia practice
7. Contributions of Sir Ivan whiteside Magill to anaesthesia practice.
8. The mechanism and types of channel block and drugs producing this.
9. The stimulus, effect and mechanism in Cushing`s reflex.
10. Enumerate the Supra-glottic airways with advantages and disadvantages of each.

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