

**VINAYAKA MISSION'S RESEARCH FOUNDATION  
(DEEMED TO BE UNIVERSITY), SALEM**

**M.D. DEGREE EXAMINATION - May 2019**

**ANAESTHESIOLOGY**

**PART I - PAPER I: APPLIED BASIC SCIENCES RELATED TO  
ANAESTHESIA INCLUDING PHYSICS AND HISTORY OF  
ANAESTHESIA**

Time: Three hours

Maximum: 100 marks

**I. ANATOMY :** (4 x 5 = 20)

- a. Vocal cord palsies
- b. Foramina of base of skull
- c. Lumbosacral plexus
- d. Typical vertebra

**II. PHYSIOLOGY :** (4 x 5 = 20)

- a. Hypoxic pulmonary vasoconstriction
- b. Cerebral auto- regulation
- c. Cardiac cycle
- d. Non- respiratory functions of lung

**III. BIOCHEMISTRY :** (3 x 5 = 15)

- a. Magnesium
- b. Renal function test
- c. Causes of metabolic acidosis

**IV. PHARMACOLOGY :** (3 x 5 = 15)

- a. Magnesium sulphate
- b. Levosimendan
- c. Newer beta- blockers

**V. PATHOLOGY :** (3 x 5 = 15)

- a. Control of H1N1 in ICU
- b. Hi- speed autoclave
- c. Universal safety precautions

**VI. MICROBIOLOGY :** (3 x 5 = 15)

- a. Postoperative acute renal failure
- b. Thromboelastogram
- c. Transfusion related acute lung injury