

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

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

**OPHTHALMOLOGY**

**PART – I - PAPER I : APPLIED BASIC SCIENCES IN  
OPHTHALMOLOGY**

Time: Three hours

Maximum: 100 marks

(Answer **ALL** questions)

Draw suitable diagrams wherever necessary

**I. ANATOMY :** **(5 x 5 = 25)**

- a. Embryology and anatomy of human lens.
- b. Macula.
- c. Lacrimal apparatus.
- d. Yoke muscles of eye.
- e. Floor of orbit

**II. PHYSIOLOGY :** **(5 x 5 = 25)**

- a. Factors which maintain normal intraocular pressure.
- b. Pupillary light reflexes.
- c. Accommodation.
- d. Role of corneal endothelium in maintaining corneal transparency .
- e. Contrast sensitivity

**III. BIOCHEMISTRY :** **(2 x 5 = 10)**

- a. Vitamin A metabolism in the eye
- b. Biochemical changes causing cataract

**IV. PHARMACOLOGY :** **(4 x 5 = 20)**

- a. Anti- VEGF drugs
- b. Antimetabolites used in ophthalmology.
- c. Carbonic anhydrase inhibitors.
- d. Drugs used in treating fungal corneal ulcer.

**V. PATHOLOGY :** **(2 x 5 = 10)**

- a. Ocular melanoma.
- b. Pathology of sympathetic ophthalmitis

**VI. MICROBIOLOGY :** **(2 x 5 = 10)**

- a. Microbiological investigations in corneal ulcer.
- c. Ocular toxoplasmosis.

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