

**VINAYAKA MISSION'S RESEARCH FOUNDATION, SALEM**  
(Deemed to be University)

**MBBS DEGREE EXAMINATION – August 2018**  
**FIRST YEAR**

**HUMAN PHYSIOLOGY INCLUDING BIOPHYSICS – PAPER I**

**Time : Three hours**

**Maximum : 80 marks**

**Answer ALL questions**  
**Draw diagrams wherever necessary**

**SECTION – A**

**I. Write essay on :** **(1 x 10 = 10)**

1. Describe the functions of different types of T-lymphocytes.

**II. Write short notes on :** **(4 x 5 = 20)**

2. Briefly describe the electrical activity of Gastrointestinal smooth muscle
3. Discuss the abnormalities of micturition
4. Discuss the diffusion through the cell membrane
5. Compare the smooth muscle contraction with skeletal muscle contraction.

**III. Answer briefly :** **(5 x 2 = 10)**

6. Effect of thyroid hormone of growth.
7. Functions of testosterone during fetal development
8. Causes of metabolic alkalosis
9. Thrombocytopenia
10. Law of the Gut.

**SECTION – B**

**I. Write essay on :** **(1 x 10 = 10)**

11. Describe the actions of paratharmone. Add a note on hyposecretion of paratharmone.

**II. Write short notes on :** **(4 x 5 = 20)**

12. Functions of placental hormones.
13. Functions of skin
14. Describe briefly the movements of small intestine
15. Discuss the proximal tubular reabsorption.

**III. Answer briefly :** **(5 x 2 = 10)**

16. Filtration fraction
17. Renal glycosuria
18. Na<sup>+</sup>. k<sup>+</sup> pump
19. Corpus Luteum
20. Peroxisomes.