

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

**B.H.M.S. DEGREE EXAMINATION – October 2019  
First Year**

**PHYSIOLOGY INCLUDING BIOCHEMISTRY PAPER - II**

Time: Three hours

Maximum: 100 marks

I. Write long essays on any **TWO** of the following: (2 x 15 = 30)

- 1) Name the hormones secreted by the anterior pituitary. Explain the function of growth hormone on metabolism and skeleton. Mention the role of somatomedin C.
- 2) Write the composition of gastric juice. Explain the regulation of gastric juice secretion.
- 3) List the various descending tracts. Explain the pyramidal tract with a neat diagram. Write the effects of UMNL.

II. Write short essays on any **TEN** of the following: (10 x 5 = 50)

- 4) Explain the mechanism of deglutition.
- 5) Define Menstruation. Explain the uterine phase of menstrual cycle.
- 6) Trace the tract of Gall and Brudach. Mention their functions.
- 7) Define carbohydrates. Classify carbohydrates with example.
- 8) Write the formation, composition, circulation and drainage of aqueous humor.
- 9) Explain beta oxidation of fatty acids.
- 10) Explain Urea cycle.
- 11) Define BMR. Explain the factors affecting BMR.
- 12) Explain Vitamin A in terms of sources, requirement and functions.
- 13) Write the normal serum calcium level. Describe the role of paratharmone in the regulation of calcium.
- 14) Describe the mechanism of synaptic transmission.
- 15) Describe the fetal circulation.

III. Write short notes of the following: (**Answer ALL**): (10 x 2 = 20)

- 16) Enumerate the components of enteric nervous system.
- 17) Define reflex. Write the component of reflex arc.
- 18) Classify neuron.
- 19) Myopia – define, write the cause and treatment.
- 20) Enumerate the functions of placenta.
- 21) Name 10 essential amino acids.
- 22) Classify lipoproteins.
- 23) Define specific dynamic action.
- 24) Pellagra – cause and clinical manifestations.
- 25) Define transamination. Give example.