

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

**B.H.M.S. DEGREE EXAMINATION – December 2020  
First Year**

**PHYSIOLOGY INCLUDING BIOCHEMISTRY PAPER – I**

Time: Three hours

Maximum: 100 marks

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

- 1) Classify blood groups. Describe physiology of ABO and Rh blood group systems. Enumerate effects of mismatched transfusion.
- 2) Describe in detail the production and propagation of cardiac impulse with the help of a neat diagram.
- 3) Name different Volumes and Capacities of Lungs. How are they measured?

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

- 4) What is ultra filtration?
- 5) Classify Leucocytes and describe their functions.
- 6) Counter current mechanism in Kidneys.
- 7) Pulmonary Circulation.
- 8) P.R. Interval.
- 9) Functions of Plasma Proteins.
- 10) Properties of Cardiac muscle.
- 11) Describe platelets and their functions.
- 12) Mechanism of micturition.
- 13) Coronary Circulation.
- 14) E.S.R.
- 15) Pyrexia or Fever.

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

- 16) Nucleolus.
- 17) Einthoven's law.
- 18) Respiratory membrane.
- 19) Peripheral resistance.
- 20) Mitosis.
- 21) Functions of Spleen.
- 22) Renal Erythropoietin factor.
- 23) Diffusion.
- 24) Layers of Epidermis.
- 25) Forced Expiratory Volume ( F.E.V) or Vital capacity.