

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

**M.P.T. DEGREE EXAMINATION – November 2019
Second Semester**

EXERCISE PHYSIOLOGY AND ELECTROPHYSIOLOGY

Time: Three hours

Maximum : 100 marks

I. Write short answers on: (10 x 2 = 20)

1. Spurt muscle
2. Anaerobic threshold.
3. Maximal heart rate.
4. pH.
5. SAID principle.
6. Motor unit action potential.
7. Action potential.
8. Latency.
9. Saphenous nerve.
10. Axon reflex.

II. Write short notes on: (8 x 5 = 40)

11. Enumerate the types of muscle fibres.
12. Discuss the synthesis, distribution and conversion of lactic acid in training
13. Discuss the procedure and result interpretation of Harvard step test
14. Explain the concept of second wind in detail.
15. Compare and contrast surface electrodes and needle electrodes.
16. Describe the Physiology of nerve conduction.
17. Describe the EMG changes in myasthenia gravis
18. Discuss the use of somatosensory evoked potentials in diagnosis.

III. Write essays on: (2 x 20 = 40)

19. Discuss one laboratory and field method for assessing VO₂ max in detail.
20. Discuss the procedure and quantitative methods in EMG examination.