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**The Assam Royal Global University, Guwahati**

Royal School of Medical & Allied Sciences

Masters of Physiotherapy, 2<sup>nd</sup> Semester

Semester End Examination, June 2023

Course Title : Electro Physiology

Course Code : PHT244C202

Time: 3 Hours

Maximum Marks: 70

**Note: Attempt all questions as per instructions given.**  
*The figures in the right-hand margin indicate marks.*

**Section – A**

1. Attempt **all** questions. (Maximum word limit 50) 2 x 8
- a. Define FES. Mention its uses.
  - b. Write down the difference between phase duration & pulse duration control.
  - c. What is sarcomere?
  - d. Mention the functions of myelin sheath.
  - e. What is transient muscle hypertrophy?
  - f. List out the use of Interrupted Direct Current?
  - g. Mention the precautions to be taken during use of SWD.
  - h. What is MUAP?

**Section – B**

2. Attempt **any one** of the following: 12 x 1
- a. Explain about the different types of electrical stimulators used in electrotherapeutic field.
  - b. Importance of strength duration curve in physiotherapy.
3. Attempt **any two** of the following: 7 x 2
- a. Explain the electrical properties of muscle.
  - b. Describe the structures found in PNS.
  - c. What is NMJ? Write down the mechanism for release of neurotransmitters.
4. Attempt **any two** of the following: 7 x 2
- a. Discuss the process of gain strength in muscle plasticity.
  - b. Write down the effects of electrical stimulation on circulation.
  - c. Describe the instrumentation for electrophysiological assessment.
5. Attempt **any two** of the following: 7 x 2
- a. What is biofeedback? Write its principle, indications & limitations.
  - b. Explain the different phases of recording EMG.
  - c. Discuss the types of NCV.