

**U.G. 4th Semester Examination - 2021****PHYSIOLOGY****[HONOURS]****Generic Elective (GE)****Course Code : PHYSIOL-H-GE-T-2****(Physiology of Nerve & Muscle Cells)**

Full Marks : 20

Time : 1 Hour

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.***GROUP-A**

1. Answer any **five** questions: 1×5=5
- What are differences between I and A band?
  - Define Z discs.
  - What do you understand by isotonic muscle contraction?
  - State "all or none law for skeletal muscle".
  - What is sarcomere?
  - What are varicosities?
  - What is synaptic gutter?
  - What is F-actin?

*[Turn Over]***GROUP-B**

2. Answer any **one** question: 5×1=5
- What do you mean by saltatory conduction?  
How nerve impulses are conducted through myelinated nerve fibre? 2+3
  - Write a note on cardiac muscle. 5
  - State differences between skeletal muscle and smooth muscle. 5

**GROUP-C**

3. Answer any **one** question: 10×1=10
- What is excitation contraction coupling?  
Describe the contraction process of skeletal muscle. 2+8
  - What is synapse? Write the name of the different types of synapse.
    - Describe the synaptic transmission. (1+2)+7
  - What is cross bridge? Describe the morphological function of muscle fibre briefly. 2+8

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