

## **SUPPLEMENTARY**

**SARASWATI-I: SEPTEMBER 2017**  
**SUBJECT: PHYSIOLOGY PAPER-I**

Day : Monday  
Date : 11/09/2017

Time: 2.00 pm To 4.00 pm  
Max. Marks: 50.

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**N.B.:**

- 1) Solve any **FIVE** questions.
  - 2) Figures to the **RIGHT** indicate full marks.
  - 3) Draw labelled diagrams **WHEREVER** necessary.
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- Q.1 a)** Draw and label Neuro-muscular junction and enumerate steps in transmission of an impulse across it. **(05)**
- b)** Describe muscles of respiration. **(05)**
- Q.2 a)** An elderly obese male developed acute retrosternal pain radiating to the left ulnar border. His Electrocardiogram (ECG) showed ST segment elevation. **(05)**
- i) Identify the condition.
  - ii) What is the cause?
  - iii) Why is the pain referred to the left ulnar border?
- b)** Define Glomerular Filtration Rate and describe factors affecting it. **(05)**
- Q.3 a)** Explain in brief Starling's forces of tissue fluid formation. **(05)**
- b)** Enumerate various mechanisms of transport across cell membrane and describe active transport across cell membrane in detail. **(05)**
- Q.4 a)** Describe various factors affecting diffusion of gases across respiratory membrane. **(05)**
- b)** Discuss cell mediated immunity. **(05)**
- Q.5** Write notes on **ANY TWO:** **(10)**
- a) Heart sounds
  - b) Cyanosis
  - c) Properties of cardiac muscle
- Q.6** Write notes on **ANY TWO:** **(10)**
- a) Erythroblastosis foetalis ,
  - b) Baroreceptor reflex
  - c) Juxtaglomerular apparatus

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