

**2021**

Time :As in Programme

Full Marks : 100

*The figures in the right-hand margin indicate marks.*

*Answer **all** questions.*

*Draw diagrams wherever necessary*

**SECTION-A**

1. Define hemostasis. Briefly describe its mechanism to form clot. (5+10)

OR

What is the composition of pancreatic juice? How does it help in protein digestion? (8+7)

2. Write short notes on (3x5)
- a) Plasma
  - b) Calmodulin
  - c) Refractory period
  - d) Surfactant
  - e) Vital capacity
3. Define cardiac cycle. Discuss about the different phases of the cycle. (4+6)

(Turn Over)

4. Give physiological reasons:- (2X5)
- a) HIV infection causes immune compromised state of human being.
  - b) O<sub>2</sub> therapy is not helpful in histotoxic hypoxia.
  - c) Cardiac muscle in nerve fatigue.
  - d) Relaxation of skeletal muscle is an active process.
  - e) Blood group AB is regarded on universal recipient

**SECTION- B**

5. Draw a neat and labelled diagram of neuromuscular junction. What are the events of excitation & contraction coupling in skeletal muscle? (7+8)

OR

Give a brief note on CO<sub>2</sub> transport from tissue to the lungs. What are the features of CO poisoning. (10+5)

6. Compare and contrast (3x5)
- a) Monocyte and macrophage
  - b) 'B' lymphocytic and 'T' lymphocytic
  - c) Adult haemoglobin & Foetal haemoglobin.
  - d) Benign and malignant hypertension.
7. Draw a neat and labelled diagram of (5x2)
- a) ECG
  - b) Spirogram to show lung volumes and capacities.

8. Do as directed (2x5)
- a) Fill in the blanks
    - i. Gastrin is secreted by \_\_\_\_\_ cells.
    - ii. Closure of mitral valve causes \_\_\_\_\_ sound.
  - b) Correct the statement , if incorrect
    - i. Pancreatic juice is acidic.
    - ii. Deficiency of iron causes pernicious anaemia.
  - c) True/ false:-  
Facilitated diffusion requires energy.



(Contd.)