

Note : Answer all following questions
(20 M.)

Q1 \

- A\ Explain the structures of cell membrane.
- B\ Write five functions of blood.

Q2 \

(20 M.)

A\ fill in the blanks with suitable answer: (choose 10 only)

1. ----- is the Basic Functional unit of the Nervous System.
2. When water diffuses across a selectively permeable membrane due to concentration differences of various solutes, it is called-----.
3. Synaptic vesicles contain-----.
4. Maturation of erythrocytes regulated mainly by ----- which is released by kidneys.
5. There are two types of neurotransmitters ----- and -----.
6. THE top region of the brain stem is called -----.
7. In ECG Diagram: P wave means -----,QRS complex mean ----- While T wave refeers to -----.
8. Purkinje fibers carry the impulse to -----
9. Peyer's patches are found in the -----

B\ Enumerate general functions of cardiovascular system.

Q3\ Select two questions :

(20 M.)

- A\ Discuss the following statment: swelling of the lymph nodes during infection with some diseases such as cancer.
- B\ Enumerate the types and locations of valves in heart .
- C \ Discuse Heart Physiology (Sequence of Excitation).

Q4\ Select two questions :

(20 M.)

- A\ Write about actions of gastrin & secretin hormones.
- B\ Mention the functions & composition of the saliva .
- C\ Talk about calf digestive system.

Q5\\

(20 M.)

A\ Multiple choice (choose 5 only)

- 1- Slow waves in small intestinal smooth muscle cells occur due to ;
A- Action potentials. B- Phasic contractions. C- Tonic contractions.
- 2- When parietal cells stimulated, they will secrete ;
A- HCL & intrinsic factor. B- HCL & pepsinogen. C- HCL & HCO₃.
- 3- Which of the following is characteristic of saliva ;
A- The presence of proteases. B- A lower HCO₃ concentration than plasma.
C- Hypotonicity relative to plasma.
- 4- When S cells of the duodenum stimulated, they will secrete ;
A- HCL & pepsinogen. B- Cholecystokinin. C- Secretin .
- 5- Regulation of pancreatic secretions by;
A- Ach B- Cholecystokinin (CCK). C- Ach & (CCK).
- 6- Pepsinogen is activated to pepsin by;
A- Gastric HCO₃ & H⁺. B- duodenum H⁺. C- Gastric H⁺.
- 7- Inhibition of gastric H⁺ Secretion occur due to ;
A- Low Ph < 3.0 in the stomach. B- Chyme in the stomach. C- Low Ph < 3.0 in duodenum.

B\ Write about digestion of the Carbohydrate .

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