Human Physiology 1 Exam

HUMAN PHYSIOLOGY 1.

Main exam.

INSTRUCTIONS.

Answer all the questions

In infants, defecation often follows a meal. The cause of colonic contractions in this situation is?

A. Gastro-ileal reflex
B. Increased circulating levels of CCK
C. Gastro-colic reflex
C. Enterogastric reflex

Which of the following has highest PH?

A. Gastric juice.
B. Pancreatic juice.
C. Bile in GB.
D. Secretions of intestinal glands.

Secretion of intrinsic factor occurs in?

A. Parietal cells of stomach
C. Chief cells of stomach
B. Upper abdomen
D. Alpha cells of pancreas

Saliva is responsible for all EXCEPT

A. Helps in deglutition/swallowing
B. Prevents dental caries
C. Is essential for complete digestion of starch
D. Prevents decalcification of the teeth

The conversion of glucose to glycogen is known as?

A. Glycolysis.
B. Glycogenesis.

C. Gluconeogenesis.
D. Glycogenolysis.

Pepsin is?

A. Fat digesting enzyme B. Secreted by oxyntic cells

C. Proteolytic enzyme D. Milk clotting enzyme

Cholecystokinin is synthesized and released by?

A. S cells B. G cells

C. D cells D. I cells

Peristaltic wave called mass movement is seen in?

A. Large intestine B. Stomach

C. Small intestine D. Oesophagus

Emulsification of dietary lipids is brought about by?

A. Secretion B. Cholecystokinin

C. Bile salts D. Pepsin

Galactose absorption is by?

A. Na dependent active transport process B. Simple diffusion

C. Facilitated diffusion D. Pinocytosis

Main purpose of the mucocilliary action of upper respiratory tract is

A. Protective function B. Inhibits respiration

B. Increase the velocity of inspired air C. Decreases the velocity of expired air

Inspiration causes the enlargement of the thorax by?

A. Movement of the ribs upwards B. Movement of the ribs outwards

C. Descend of the diaphragm D. All the above

Most important factor which prevent the collapse of the lungs

A. Intra pleural fluid B. Intra pleural pressure

C. Surface tension of alveolar fluid D. Intra thoracic pressure

Oxygen content of the saturated arterial blood

A. 11ml/100ml C. 14ml/100ml

C. 19ml/100ml D. 21ml/100ml

Carbon dioxide is carried in blood

A. Combination with hemoglobin B. In combination with plasma proteins

C. Mainly as bicarbonate D. All of the above

Oxyhemoglobin dissociation curve shift to the right in all except?

A. Fall in PH B. Rise in temperature

C. Increase in 23 DPG D. All the above

Most of the venous carbon dioxide is in form of

A. Carbonate B. Carbonic acid

C. Bicarbonate D. Dissolved carbon dioxide

Which of the following is not a function of the lungs?

1. Metabolism
2. Serves as a reservoir of blood for the left ventricle
3. It is a filter to protect the systemic vasculature

4. Facilitates the exchange of O2 and CO2 between air and blood
5. All the above are true

Which of the following does NOT happen during inspiration

1. The ribs move forward
2. The diaphragm lifts up
3. The artero-posterior dimensions of the chest are increased
4. The transverse dimensions of the thorax are increased

During inspiration how does alveolar pressure compare to atmospheric pressure?

1. Alveolar pressure is greater than atmospheric pressure
2. Alveolar pressure is less than atmospheric
3. Alveolar pressure is the same as atmospheric
4. Alveolar pressure is of the few pressures where the reference pressure is not atmospheric

SAQS

1. Outline the stages of swallowing (8 marks)
2. Define blood pressure and describe the hormonal control of blood pressure(6marks)
3. What are the functions of salivary secretions (6 marks)
4. Outline briefly the functions of circulatory system. (6 marks)
5. Describe the sequences of inspiration and how oxygen is transported in blood (6 marks)
6. With aid of a labeled diagram describe the phases of action potential in a non peacemaker cell of the heart (6 marks)
7. What is the composition of plasma and function of plasma proteins(6marks)
8. Explain the functions of plasma proteins. (6 marks)

LEQ

1. Describe in detail how fats are digested, absorbed and transported in the blood. (15 marks)
2. Describe in detail the process/steps of blood clotting (15 marks).