

Chapter 6: Life Processes

1. Which of the following is not a digestive enzyme contained in the pancreatic juice?

- i. Lipase
- ii. Hydrochloric acid
- iii. Mucus
- iv. Trypsin

- a) (i) and (ii)
- b) (i) and (iv)
- c) (ii) and (iii)
- d) (i) and (iii)

Answer: (c) (ii) and (iii)

Explanation: The enzymes lipase and trypsin are present in the pancreatic juice that breakdown emulsified fats and degrade proteins respectively.

2. The enzymes pepsin and trypsin are secreted respectively by

- a) Stomach and pancreas
- b) Salivary gland and stomach
- c) Liver and pancreas
- d) Liver and salivary gland

Answer: (a) Stomach and pancreas

Explanation: Stomach secretes the enzyme pepsin and pancreas produces trypsin. Both of them breakdown protein.

3. Among the following choose the correct option which includes the organisms that have a holozoic mode of nutrition:

- a) Plasmodium and Amoeba
- b) Parakeet and Amoeba
- c) Paramecium and Plasmodium
- d) Paramecium and Parasite

Answer: (b) Parakeet and Amoeba

Explanation: Holozoic nutrition involves the ingestion of organic food particles and later its assimilation for the purpose of supplying energy to the whole body.

4. Raw materials required in the autotrophic mode of nutrition involves:

- i. Carbon dioxide and water
- ii. Chlorophyll
- iii. Nitrogen
- iv. Sunlight

- a) (i), (ii) and (iii)
- b) (i) and (ii)
- c) (i), (ii) and (iv)
- d) All (i), (ii), (iii) and (iv)

Answer: (c) (i), (ii) and (iv)

Explanation: Autotrophic mode of nutrition involves the use of sunlight, chlorophyll, carbon dioxide and water to produce starch.

5. The enzymes contained in pancreatic juices help in the digestion of:

- a) Fats and carbohydrates
- b) Proteins and fats
- c) Proteins and carbohydrates
- d) Proteins, fats and carbohydrates

Answer: (d) Proteins, fats and carbohydrates

Explanation: The pancreas contains all kinds of enzymes that can digest proteins, fats and carbohydrates.

6. Which of the following help in protecting the inner lining of the stomach from the harmful effect of hydrochloric acid?

- a) Mucus
- b) Pepsin
- c) Trypsin
- d) Bile

Answer: (a) Mucus

Explanation: Mucus is a viscous secretion that protects the inner lining of the stomach from the action of HCl.

7. Sometimes we get painful cramps in our leg muscles after running for a long time due to the accumulation of:

- a) Hydrochloric acid
- b) Fat
- c) Carbon dioxide
- d) Lactic acid

Answer: (d) Lactic acid

Explanation: The build-up of lactic acid in our muscles while running (less oxygen conditions) causes cramps.

8. The vein which brings clean blood from the lungs into the heart is known as:

- a) Pulmonary vein
- b) Hepatic vein
- c) Superior vena cava
- d) Pulmonary artery

Answer: (a) Pulmonary vein

Explanation: The pulmonary vein is responsible for bringing oxygenated and pure blood into the heart.

9. Movement of the synthesized products from the leaves to the roots and other parts of a plant's body takes place through the phloem. This process is known as:

- a) Translocation
- b) Transpiration
- c) Transportation
- d) Excretion

Answer: (a) Translocation

Explanation: The transport of soluble products of photosynthesis through all parts of the plant by specialized structures called phloem is translocation.

10. The process of diffusion of solvent particles from the region of less solute concentration to a region of high solute concentration through semi-permeable membrane is known as

- a) Diffusion
- b) Osmosis
- c) Translocation

d) Transpiration

Answer: (b) Osmosis

Explanation: The diffusion of solvent particles from a region of less concentration to high concentration (concentration gradient) through a semi permeable membrane is called osmosis.

11. Which among the following procedures is used for cleaning the blood of a person by separating the waste substance from it?

a) Kidney transplant

b) Blood transfusion

c) Dialysis

d) Hydrolysis

Answer: (c) Dialysis

Explanation: Dialysis is the procedure of detoxifying the blood by isolating the waste and unwanted constituents in it.

12. The excretory unit of the human excretory system is known as:

a) Nephridia

b) Neuron

c) Nephron

d) kidneys

Answer: (c) Nephron

Explanation: Each kidney has large numbers of the filtration units called nephrons.

13. Plants use the energy stored in ATP to accomplish the process of transportation of:

a) Water and minerals

b) Oxygen

c) Water, minerals and food

d) Food

Answer: (d) Food

Explanation: Translocation of food by phloem is achieved by utilizing energy from ATP.

14. Which among the following is necessary to carry out the blood coagulation in a cut or wound?

a) White Blood Cells

b) Blood plasma

c) Platelets

d) Red blood cells

Answer: (c) Platelets

Explanation: Platelets coagulate blood whenever there is a cut or a wound. This stops excess flow of blood or hemorrhagic conditions.

15. Arteries and veins are connected by a network of extremely narrow tubes called:

a) Sieve tubes

b) Capillaries

c) Vena cava

d) Valves

Answer: (b) Capillaries

Explanation: Blood capillaries are vessels that connect arteries and veins and help in blood circulation.