

Practice Questions - Term I

Date: 10/11/2021

Subject: Biology

Topic : Life Processes

Class: X

1. The opening and closing of stomata depend on the following:

- A. Concentration of oxygen in the atmosphere.
- B. Temperature of the atmosphere.
- C. Presence of water in guard cells.
- D. Concentration of carbon dioxide in the atmosphere.

2. The instrument used for measuring blood pressure is:

- A. Manometer
- B. Sphygmomanometer
- C. Thermometer
- D. Barometer

3. Exchange of gases in the human body occurs in the:

- A. Alveoli
- B. Bronchi
- C. Trachea
- D. Larynx

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4. The phloem tissue in plants is responsible for the transport of:

- A. Water
- B. Minerals
- C. Food
- D. All of the above

5. Which among the following is not a part of the alimentary canal?

- A. Stomach
- B. Liver
- C. Oesophagus
- D. Rectum

6. Which of these is the correct path of urine in our body?

- A. Kidney → Ureter → Urethra → Urinary bladder
- B. Kidney → Urinary bladder → Urethra → Ureter
- C. Kidney → Ureter → Urinary bladder → Urethra
- D. Urinary bladder → Kidney → Ureter → Urethra

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7. Why is it necessary for the food to be broken down and digested?
- A. Large molecules in intact food pass through the digestive epithelium and enter the cell through the membrane, damaging the nuclear membrane. Hence, it must be broken down.
 - B. Fats present in intact food contain very large molecules that cannot pass through cell membranes. Fats need to be passed through the digestive epithelium to be utilised.
 - C. Large molecules present in intact food cannot pass through cell membranes. Nutrients need to be separated from food to be passed through the digestive epithelium to be utilised.
 - D. If not broken down, large molecules produce toxic substances that pass through the epithelium of the digestive tract and are utilised by the cells. This can be lethal to the cells.
8. There is an increase in blood urea when there is insufficient filtration in _____.
- A. loop of Henle
 - B. distal tubule
 - C. Bowman's capsule
 - D. collecting tubule
9. Aerobic respiration produces more usable chemical energy than fermentation because fermentation involves:
- A. Formation of lactic acid
 - B. Complete oxidation of food
 - C. Partial oxidation of food
 - D. Evolution of CO₂ and alcohol

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10. Select the correct events that occur during inspiration.
- A. Diaphragm contracts
 - B. Diaphragm relaxes
 - C. Thoracic cavity volume decreases
 - D. Ribs and sternum return to the original position
11. **Assertion:** Intensive exercise leads to muscle cramps.
Reason: Ethanol is produced as a result of anaerobic respiration.
- A. Both A and R are true and R is the correct explanation of A
 - B. Both A and R are true but R is not a correct explanation of A
 - C. A is true but R is false
 - D. A and R are false
12. **Assertion:** CO_2 diffuses only from tissue to alveoli and not in the reverse direction.
Reason: CO_2 is 10 times more soluble than O_2 .
- A. Both A and R are true and R is the correct explanation of A.
 - B. Both A and R are true but R is not a correct explanation of A
 - C. A is true but R is false
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13. **Assertion:** Fermentation occurs by the incomplete oxidation of glucose.

Reason: Yeast forms ethanol & CO₂ from pyruvic acid.

- A. Both A and R are true and R is the correct explanation of A.
- B. Both A and R are true but R is not a correct explanation of A
- C. A is true but R is false
- D. A and R are false

14. **Assertion:** Pulmonary artery carries oxygenated blood from the left ventricle to the lungs.

Reason: All arteries carry oxygenated blood.

- A. Both A and R are true and R is the correct explanation of A.
- B. Both A and R are true but R is not a correct explanation of A
- C. A is true but R is false
- D. A and R are false

15. **Assertion:** Left ventricle pumps oxygenated blood to different body parts while the right ventricle pumps deoxygenated blood to the lungs.

Reason: Right atrium receives deoxygenated blood from different parts of the body while the left ventricle pumps oxygenated blood to different parts of the body.

- A. Both A and R are true and R is the correct explanation of A.
- B. Both A and R are true but R is not a correct explanation of A
- C. A is true but R is false
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16. **Assertion:** Walls of the ventricles are generally thicker than that of the atria.

Reason: Ventricles pump blood to different organs with high pressure.

- A. Both A and R are true and R is the correct explanation of A.
 - B. Both A and R are true but R is not a correct explanation of A
 - C. A is true but R is false
 - D. A and R are false
17. **Case:** Neena was writing a project report on nutrition in different organisms. A study on the digestive system of different animals showed that the length of the food pipe or oesophagus in different animals are different. The study showed that herbivores have a longer small intestine as compared to carnivores. Help Neena to complete her report by answering the following question:

Which of the following organisms have the same mode of nutrition as the animals including humans?

- A. Plants
- B. Fungi
- C. Amoeba
- D. All of the above

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18. **Case:** Neena was writing a project report on nutrition in different organisms. A study on the digestive system of different animals showed that the length of the food pipe or oesophagus in different animals are different. The study showed that herbivores have a longer small intestine as compared to carnivores. Help Neena to complete her report by answering the following question:

Why do herbivores have a longer small intestine than carnivores?

- A. Herbivores consume more food than carnivores.
- B. Herbivores consume simple sugar that is difficult to digest.
- C. Herbivores consume grass that is rich in cellulose.
- D. Carnivores consume meat that is difficult to digest.

19. **Case:** Neena was writing a project report on nutrition in different organisms. A study on the digestive system of different animals showed that the length of the food pipe or oesophagus in different animals are different. The study showed that herbivores have a longer small intestine as compared to carnivores. Help Neena to complete her report by answering the following question:

State the adaptations of the small intestine that help in the absorption of food.

- A. Greater length and less width causes slow movement of food
- B. Presence of a larger number of villi
- C. Single-cell epithelium
- D. All of the above

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20. **Case:** Neena was writing a project report on nutrition in different organisms. A study on the digestive system of different animals showed that the length of the food pipe or oesophagus in different animals are different. The study showed that herbivores have a longer small intestine as compared to carnivores. Help Neena to complete her report by answering the following question:

Name the enzyme that is released by the gastric glands of the stomach.

- A. Trypsin
- B. Pepsin
- C. Lipase
- D. Ptyalin