

Time : 1 Hour 30 Minute

STD 10 Science
Chapter Based Test

Total Marks : 50

SECTION A

* Select and write one most appropriate option out of the four options given [7]
for each of the questions

- Choose the correct path of urine in our body:
(A) Kidney → ureter → urethra → urinary bladder.
(B) Kidney → urinary bladder → urethra → ureter.
(C) Kidney → ureters → urinary bladder → urethra.
(D) Urinary bladder → kidney → ureter → urethra.
- The wave of expansion of an artery when blood is forced into it is called:
(A) Flow. (B) Heart beat. (C) Pulse. (D) Ticking.
- What prevents the backflow of blood inside the heart during contraction?
(A) Thick muscular walls of ventricles. (B) Valves. (C) Thin walls of atria. (D) All of the above.
- The phloem tissue in plants is responsible for the transport of:
a. Water.
b. Water and minerals.
c. Sugar.
d. All of the above.
- Which one of the following does not have valves?
a. Heart.
b. Arteries.
c. Capillaries.
d. Veins.
- The correct order of steps occurring in nutrition in animals is:
a. Ingestion → Absorption → Digestion → Assimilation → Egestion.
b. Ingestion → Digestion → Assimilation → Absorption → Egestion.
c. Ingestion → Digestion → Absorption → Assimilation → Egestion.
d. Ingestion → Assimilation → Digestion → Absorption → Egestion.
- Water absorption through roots can be increased by keeping the potted plants:
a. In the shade.
b. In dim light.
c. Under the fan.
d. Covered with a polythene bag.

* Assertion - Reasoning based questions. [3]

- For two statements are given- one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as

given below:

- Both A and R are true and R is correct explanation of the assertion.
- Both A and R are true but R is not the correct explanation of the assertion.
- A is true but R is false.
- A is false but R is true.

Assertion: Blood takes up oxygen from the alveolar air and release CO₂ during exchange.

Reason: The concentration of O₂ is more in alveolar air.

9. For two statements are given- one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below:

- Both A and R are true and R is correct explanation of the assertion.
- Both A and R are true but R is not the correct explanation of the assertion.
- A is true but R is false.
- A is false but R is true.

Assertion: Trachea does not collapse, when there is no air in it.

Reason: Trachea is supported by cartilage.

10. For two statements are given- one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below:

- Both A and R are true and R is correct explanation of the assertion.
- Both A and R are true but R is not the correct explanation of the assertion.
- A is true but R is false.
- A is false but R is true.

Assertion: Photosynthesis takes place in green parts of the plants.

Reason: Photosynthesis always takes place in leaves.

* **Fill in the blank with correct answer.[1 Mark each]**

[2]

11. The organs which extract the nitrogenous wastes from the blood are _____.

12. Bile juice is secreted by _____.

* **Answer the questions.[1 Mark each]**

[2]

13. What is common for Cuscuta, ticks and leeches?

14. Name the pores in a leaf through which respiratory exchange of gases takes place.

SECTION B

* **Answer the following question. :**

[10]

- Where is bile juice produced?
- State the function of chlorophyll.
- Explain how, it would benefit deep sea divers if humans also had gills.
- Write a chemical equation to show the process of photosynthesis in plants.
- With which human organ systems (or human systems) are the following associated?
 - Vena cava.
 - Glomerulus.
 - Alveoli.
 - Villi.

SECTION C

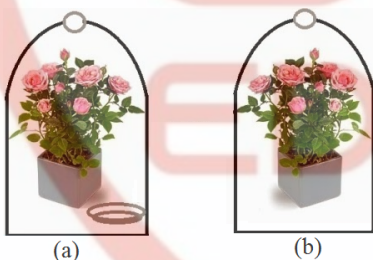
* **Answer short answer questions. [3 Mark each]** **[12]**

1. What are outside raw materials used for by an organism?
2. What substances are contained in gastric juice? What are their functions?
3. Stomata of desert plants remain closed during the day. Explain how and when they take up CO₂ to perform photosynthesis?
4. How does aerobic respiration differ from anaerobic respiration?

SECTION D

* **Long answer questions [5 Mark each]** **[10]**

1.
 - a. Draw a diagram depicting Human Alimentary Canal and label on it, Gall Bladder, Liver and Pancreas.
 - b. State the roles of Liver and Pancreas.
 - c. Name the organ which performs the following functions in humans:
 - i. Absorption of digested food.
 - ii. Absorption of water.
2. Given below is the experimental set-up to establish that one of the atmospheric gases is essential for photosynthesis in plants.

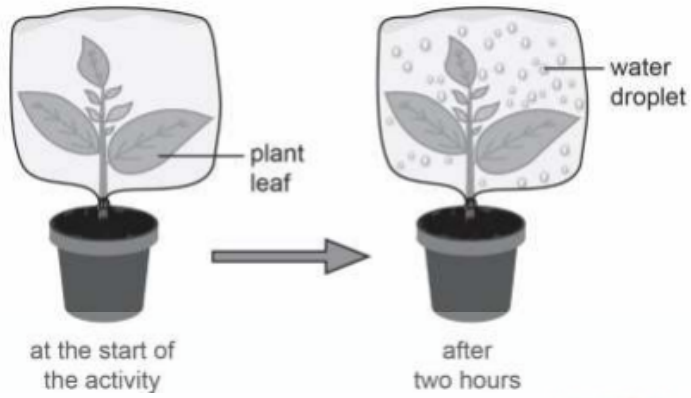


- a. Name the atmospheric gas which is essential for photosynthesis.
- b. What is kept in watch-glass in figure 'a' and why?
- c. Write the balanced chemical equation for the process of photosynthesis.
- d. When do the desert plants take up carbon dioxide and perform photosynthesis?

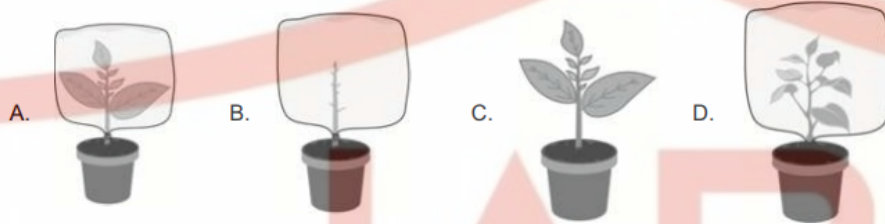
SECTION E

* **case - based/data -based questions** **[4]**

1. Sanjeev wanted to check whether plant leaves release water vapour. He took a potted plant and covered the plant with a plastic bag. The picture below shows what he observed after 2 hours.



4. Sanjeev compared the results of the activity with a new pot to confirm his findings. Which of the following best represents the new pot?



5. How does the loss of water by plant leaves help the plant? Mention two points.

JARS
EDUCATION

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