CHAPTER

# 5 LIFE PROCESSES

**WORKSHEET-66**

| Name ..... | Class..... | Roll No..... | Time 20 Min. | Max. Marks 12 | Marks Obtained |
|---|---|---|---|---|---|

## Topic-1 Nutrition

**Multiple Choice Questions:**

**Q. 1.** The correct statements with references to single celled organisms are

(i) Complex substances are not broken down into simpler substances.

(ii) Simple diffusion is sufficient to meet the requirements of exchange of gases.

(iii) Specialised tissues perform different functions in the organism.

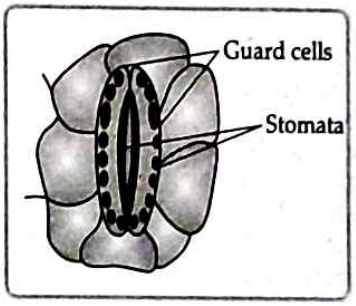
(iv) Entire surface of the organism is in contact with the environment for taking in food.

**(A)** (i) and (iii) **(B)** (ii) and (iii)

**(C)** (ii) and (iv) **(D)** (i) and (iv) **[Board Term-I, 2021] (1)**

**Ans.** .....

**Q. 2.** Which one of the following conditions is true for the state of stomata of a green leaf shown in the given diagram?




**(A)** Large amount of water flows into the guard cells.

**(B)** Gaseous exchange is occurring in large amount.

**(C)** Large amount of water flows out from the guard cells.

**(D)** Large amount of sugar collects in the guard cells. **[Board Term-I, 2021] (1)**

**Ans.** .....

**Assertion and Reason Questions:**

**Directions: In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:**

**(A) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).**

**(B) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).**

**(C) Assertion (A) is true but reason (R) is false.**

**(D) Assertion (A) is false but reason (R) is true.**

**Q. 3.** **Assertion (A):** Nitrogen is an essential element for plant growth and is taken up by plants in the form of inorganic nitrates or nitrites.

**Reason (R):** The soil is the nearest and richest source of raw materials like Nitrogen, Phosphorus and other minerals for the plants. **[Board Term-I, 2021] (1)**

**Ans.** .....

**Q. 4.** How is the wall of small intestine adapted for performing the function of absorption of food? **[CBSE SQP 2020] (1)**

**Ans.** .....

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Q. 5. Out of a goat and a tiger, which one will have a longer small intestine? Justify your answer. **[CBSE SQP, 2020] (1)**

**Ans.**

Q. 6. Bile juice does not have any digestive enzyme but still plays a significant role in the process of digestion. Justify the statement. **[CBSE SQP, 2020-21] (2)**

**Ans.**

Q. 7. **(a)** A gas is released during photosynthesis. Name the gas and also state the way by which the gas is evolved.

**(b)** What are stomata? What governs the opening and closing of stomata? **[CBSE Delhi II, 2020] (5)**

**Concept Applied** ■ ■ ■
"Process of photosynthesis".

**Ans.**

CHAPTER

# 5 LIFE PROCESSES

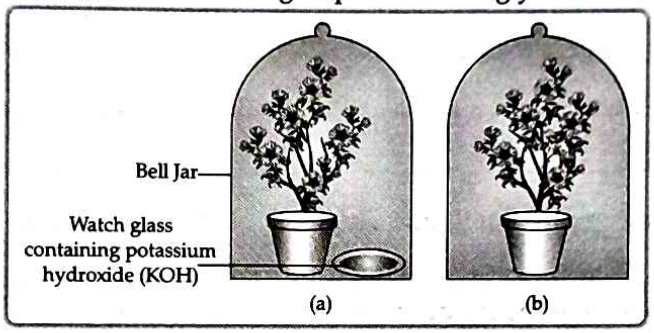
**WORKSHEET-67**

| Name ..... | Class..... | Roll No..... | Time 20 Min. | Max. Marks 12 | Marks Obtained |
|---|---|---|---|---|---|

## Topic-1 Nutrition

**Multiple Choice Questions:**

**Q. 1.** A student was asked to write a step-wise procedure to demonstrate that carbon dioxide is necessary for photosynthesis. He wrote the following steps. The wrongly worded step is:




**(A)** Both potted plants are kept in dark room for at least three days.
**(B)** Bottom of the bell jars is sealed to make them air tight.
**(C)** Both potted plants are kept in sunlight after the starch test.
**(D)** A leaf from both the plants is taken to test the presence of starch.

**[Board Term-I, 2021] (1)**

**Ans.** .....

**Q. 2.** The length of small intestine in a deer is more as compared to the length of small intestine of a tiger. The reason for this is

**(A)** Mode of intake of food.
**(B)** Type of food consumed.
**(C)** Presence or absence of villi in intestines.
**(D)** Presence or absence of digestive enzymes. **[Board Term-I, 2021] (1)**

**Ans.** .....

**Assertion and Reason Questions:**

**Directions: In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:**

**(A) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).**
**(B) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).**
**(C) Assertion (A) is true but reason (R) is false.**
**(D) Assertion (A) is false but reason (R) is true.**

**Q. 3** **Assertion (A):** Hydrochloric acid helps in the digestion of food in the stomach.
**Reason (R):** Hydrochloric acid creates an acidic medium to activate protein digesting enzymes.

**[Board Term-I, 2021] (1)**

**Ans.** .....

**Q. 4.** State the role of pancreas in digestion of food. **[CBSE SQP, 2020] (1)**

**Ans.** .....

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Q. 5. Name a common nutrient that is absorbed in the small intestine and reabsorbed by the kidney tubules. **[CBSE SQP, 2018-19] (1)**

**Ans.**

Q. 6. State the events occurring during the process of photosynthesis. Is it essential that these steps take place one after the other immediately? **[CBSE SQP, 2020-21] (2)**

**Ans.**

Q. 7. State the role played by the following in the process of digestion: (i) Enzyme trypsin (ii) Enzyme lipase.
List two functions of finger like projections present in the small intestine.

**[Outside Delhi, Set- I, 2020] (5)**

**Concept Applied** ■ ■ ■
"Process of digestion in humans".

**Ans.**

□□□

CHAPTER

# 5 LIFE PROCESSES

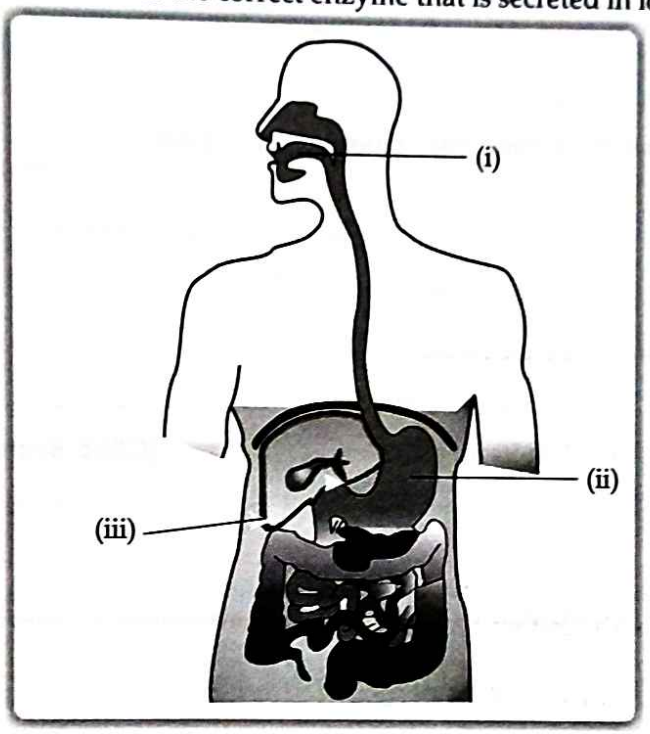
## WORKSHEET-68

| Name ..... | Class..... | Roll No..... | Time 20 Min. | Max. Marks 10 | Marks Obtained |
|---|---|---|---|---|---|

## Topic-1 Nutrition

**Multiple Choice Questions:**

**Q. 1.** Identify the option that indicates the correct enzyme that is secreted in location i, ii and iii.




**(A)** (i)-lipase, (ii)-trypsin, (iii)-pepsin
**(B)** (i)-amylase, (ii)-pepsin, (iii)-trypsin
**(C)** (i)-trypsin, (ii)-amylase, (iii)-carboxylase
**(D)** (i)-permease, (ii)-carboxylase, (iii)-oxidase **[Board Term-I, 2021] (1)**

**Ans.** .....

**Q. 2.** Opening and closing of stomatal pore depends on:
**(A)** Atmospheric temperature
**(B)** Oxygen concentration around stomata
**(C)** Carbon dioxide concentration around stomata
**(D)** Water content in the guard cells **[Board Term-I, 2021] (1)**

**Ans.** .....

**Assertion and Reason Questions:**

**Directions: In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:**

**(A) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).**
**(B) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).**
**(C) Assertion (A) is true but reason (R) is false.**
**(D) Assertion (A) is false but reason (R) is true.**

**Q. 3. Assertion (A):** HCl converts pepsinogen into active enzyme pepsin.
**Reason (R):** Pepsin converts protein into proteose and peptone. **(1)**

Ans. .....

Q. 4. What is the role of saliva in the digestion of food? [DDE, 2017] (1)

Ans. .....

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Q. 5. What is the role of acid in our stomach? [DDE, 2017] (1)

Ans. .....

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Q. 6. List the steps of preparation of temporary mount of a leaf peel to observe stomata.
[CBSE, Delhi, O.D. 2018] (2)

Ans. .....

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Q. 7. What is photosynthesis? Explain its mechanism. [CBSE Board Delhi, Set-III, 2019] (3)

Ans. .....

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CHAPTER

# 5 LIFE PROCESSES

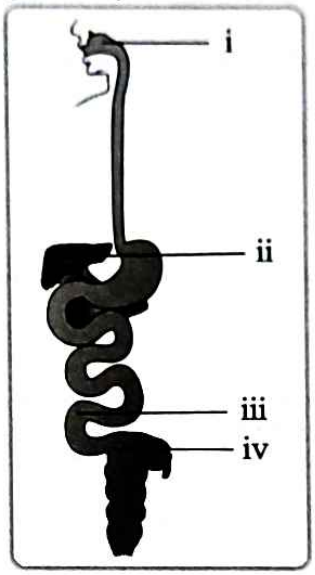
**WORKSHEET-69**

| Name ..... | Class..... | Roll No..... | Time 15 Min. | Max. Marks 10 | Marks Obtained |
|---|---|---|---|---|---|

## Topic-1 Nutrition

**Multiple Choice Questions:**

**Q. 1.** Observe the diagram of Human digestive system.




Match the labelling referred in column - I and correlate with the function in column - II.

| Column I | Column II |
|---|---|
| i | a. The length of this depends on food the organism eats. |
| ii | b. Initial phase of starch digestion |
| iii | c. Increases the efficiency of lipase enzyme action |
| iv | d. This is the site of the complete digestion of carbohydrates, proteins and fats. |

**(A)** i.- a) ; ii – b) ; iii – c) ; iv- d) **(B)** i.- b) ; ii – c) ; iii – d) ; iv- a)

**(C)** i.- b) ; ii – d) ; iii – c) ; iv- a) **(D)** i.- d) ; ii – a) ; iii – b) ; iv- c)

**[Board Term-I, 2021] (1)**

**Ans.** .....

**Q. 2.** In which of the following groups of organisms, food material is broken down outside the body and then absorbed in?

**(A)** mushroom, green plants, *Amoeba* **(B)** yeast, mushroom, bread mould

**(C)** *Paramecium, Amoeba, Cuscuta* **(D)** *Cuscuta*, lice, tapeworm **[Board Term-I, 2021] (1)**

**Ans.** .....

**Assertion and Reason Questions:**

**Directions: In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:**

**(A) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).**

**(B) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).**

**(C) Assertion (A) is true but reason (R) is false.**

**(D) Assertion (A) is false but reason (R) is true.**

Q. 3. **Assertion (A):** Digestion breaks large complex molecules to simple smaller molecules which can be easily absorbed.
**Reason (R):** Digestion is necessary for the absorption of all molecules. **(1)**

**Ans.** .....

Q. 4. What are the final products of carbohydrates, proteins and fats after their digestion? **(2)**

**Ans.** .....

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Q. 5. **(a)** Draw a diagram of human alimentary canal and label – gall bladder, pancreas, liver and small intestine in it.

**(b)** Give two reasons to explain why absorption of digested food occurs mainly in the small intestine.
**[CBSE Delhi III, 2020] (5)**

**Ans.** .....

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CHAPTER

# 5 LIFE PROCESSES

**WORKSHEET-70**

| Name ..... | Class..... | Roll No..... | Time 15 Min. | Max. Marks 12 | Marks Obtained |
|---|---|---|---|---|---|

## Topic-1 Nutrition

**Multiple Choice Questions:**

**Q. 1.** The liver secretes bile, needed to digest fats in our food. The pancreas secretes several enzymes needed to break down food.

Which of the following is true of the food that we eat?

**(A)** It passes only through our liver.

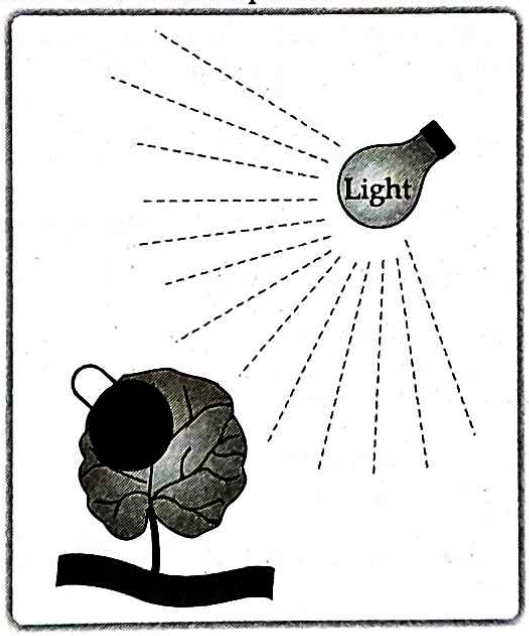
**(B)** It passes only through our pancreas.

**(C)** It passes through both our liver and pancreas.

**(D)** It passes neither through our liver nor pancreas. **(1)**

**Ans.** .....

**Q. 2.** The diagram below shows a leaf that was covered by a piece of black paper for a period of 3 days. After 3 days the paper was removed. On testing, it was found that the area under the black paper tested negative for starch and the rest tested positive for starch.




What was the experiment trying to test?

**(A)** If plants make their own food

**(B)** If light is required for plants to make food

**(C)** If plants can respire in the absence of light

**(D)** If plants can survive even in the absence of light **[Board Term-I, 2021] (1)**

**Ans.** .....

**Assertion and Reason Questions:**

**Directions: In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:**

**(A) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).**

**(B) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).**

**(C) Assertion (A) is true but reason (R) is false.**

**(D) Assertion (A) is false but reason (R) is true.**

**Q. 3.** **Assertion (A):** Lipase help in emulsification of fats.
**Reason (R):** Lipase hydrolyses fats and oils. **(1)**

**Ans.** .....

**Q. 4.** List in tabular form three distinguishing features between autotrophic nutrition and heterotrophic nutrition. **[Board Outside Delhi, Set-I, 2019] (3)**

**Ans.** .....

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**Q. 5.** A variegated leaf with green and yellow patches is used for an experiment to prove that chlorophyll is required for photosynthesis. Before the experiment, the green portions (A), and the pale yellow portions (B), are observed. What will be the colour of 'A' just before and after the starch test? Also, write the equation of photosynthesis and mark, as well as validate from which molecule the by-product is obtained. **[CBSE, SQP 2019] (3)**

**Ans.** .....

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**Q. 6.** Where does digestion start in our alimentary canal? Name the enzyme secreted in that part and write its function. **[Board Term I, 2016] (3)**

**Ans.** .....

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# 5 LIFE PROCESSES

## WORKSHEET-71

| Name ..... | Class..... | Roll No..... | Time 20 Min. | Max. Marks 14 | Marks Obtained |
|---|---|---|---|---|---|

## Topic-1 Nutrition

**Multiple Choice Questions:**

Q. 1. Which of the following statements about the autotrophs is incorrect?

(A) They synthesise carbohydrates from carbon dioxide and water in the presence of sunlight and chlorophyll.

(B) They store carbohydrates in the form of starch.

(C) They convert carbon dioxide and water into carbohydrates in the absence of sunlight.

(D) They constitute the first trophic level in food chain **[Board Term-I, 2021] (1)**

Ans. .....

Q. 2. Which is the correct sequence of parts in human alimentary canal?

(A) Mouth → stomach → small intestine → oesophagus → large intestine

(B) Mouth → oesophagus → stomach → large intestine → small intestine

(C) Mouth → stomach → oesophagus → small intestine → large intestine

(D) Mouth → oesophagus → stomach → small intestine → large intestine **[Board Term-I, 2021] (1)**

Ans. .....

Q. 3. If salivary amylase is lacking in the saliva, which of the following events in the mouth cavity will be affected?

(A) Proteins breaking down into amino acids

(B) Starch breaking down into sugars

(C) Fats breaking down into fatty acids and glycerol

(D) Absorption of vitamins **(1)**

Ans. .....

Q. 4. Select the correct statement.

(A) Heterotrophs do not synthesise their own food.

(B) Heterotrophs utilise solar energy for photosynthesis.

(C) Heterotrophs synthesise their own food.

(D) Heterotrophs are capable of converting carbon dioxide and water into carbohydrates.

**[Board Term-I, 2021] (1)**

Ans. .....

Q. 5. The autotrophic mode of nutrition requires

(A) carbon dioxide and water (B) chlorophyll

(C) sunlight (D) all of these **[Board Term-I, 2021] (1)**

Ans. .....

**Assertion and Reason Questions:**

**Directions: In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:**

**(A) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).**

**(B) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).**

**(C) Assertion (A) is true but reason (R) is false.**

**(D) Assertion (A) is false but reason (R) is true.**

Q. 6. **Assertion (A):** Photosynthesis is an anabolic process. (1)
**Reason (R):** The process of photosynthesis occurs in chlorophyll.

**Ans.** .....

Q. 7. State the necessary conditions for autotrophic nutrition and name the by-product. Mention the source of this by-product. **[Board Term I, 2015] (3)**

**Ans.** .....

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Q. 8. (i) Name the process and explain the type of nutrition found in green plants. List the raw materials required for this process. Give chemical equation for the mentioned process.

(ii) Write three events that occur during this process. **[Board Term I, 2018] (5)**

**Concept covered** ■ ■ ■

This question is based on "Autotrophic mode of nutrition" and "Process of photosynthesis".

**Ans.** .....

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CHAPTER

# 5 LIFE PROCESSES

**WORKSHEET-72**

| Name ..... | Class..... | Roll No..... | Time 15 Min. | Max. Marks 09 | Marks Obtained |
|---|---|---|---|---|---|

## Topic-2 Respiration

**Multiple Choice Questions:**

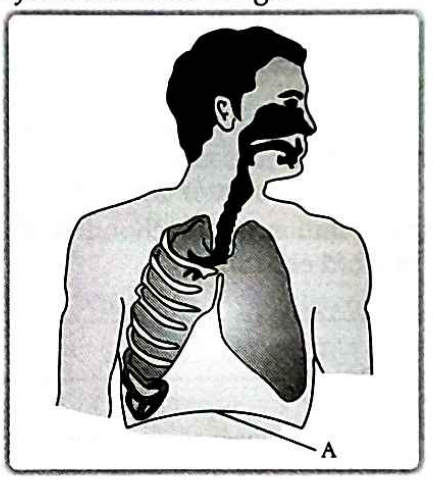
**Q. 1.** In living organisms during respiration which of the following products are NOT formed if oxygen is not available?

**(A)** Carbon dioxide + Water
**(B)** Carbon dioxide + Alcohol
**(C)** Lactic acid + Alcohol
**(D)** Carbon dioxide + Lactic Acid

**[Board Term-I, 2021] (1)**

**Ans.** .....

**Q. 2.** Which of the following statements are correct in reference to the role of A (shown in the given diagram) during a breathing cycle in human beings?




**(i)** It helps to decrease the residual volume of air in lungs.
**(ii)** It flattens as we inhale.
**(iii)** It gets raised as we inhale.
**(iv)** It helps the chest cavity to become larger.

**(A)** (ii) and (iv)
**(C)** (iii) and (iv)
**(C)** (i) and (ii)
**(D)** (i), (ii) and (iv)

**[Board Term-I, 2021] (1)**

**Ans.** .....

**Assertion and Reason Questions:**

**Directions: In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:**

**(A) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).**
**(B) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).**
**(C) Assertion (A) is true but reason (R) is false.**
**(D) Assertion (A) is false but reason (R) is true.**

**Q. 3.** **Assertion (A):** The rate of breathing in aquatic organisms is much faster than in terrestrial organisms.
**Reason (R):** The amount of oxygen dissolved in water is much lower than the amount of oxygen in air.

**[CBSE QB (Additional Ques) 2021] (1)**

**Ans.** .....

**Q. 4.** Name the respiratory pigment in human beings. Where is this pigment found? **(1)**

**Ans.** .....

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**Q. 5.** In the experimental set up on '$CO_2$ is released during respiration', if one forgets to keep the vial with KOH in the conical flask, how will the result vary? Give details. **[CBSE SQP, 2018-19] (2)**

**Ans.** .....

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**Q. 6.** Explain the processes of aerobic respiration in mitochondria of a cell and anaerobic respiration in yeast and muscle with the help of word equations. **[Board SQP, 2020] (3)**

**Ans.** .....

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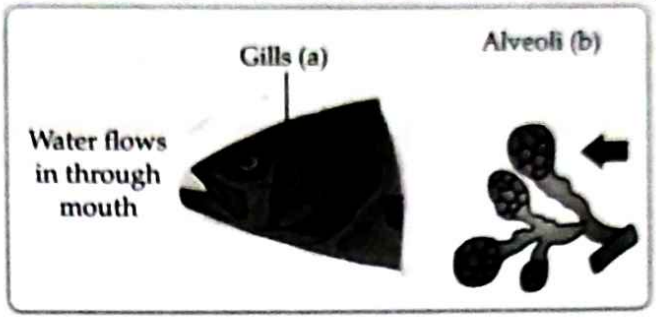
| Name ..... | Class..... | Roll No..... | Time 15 Min. | Max. Marks 10 | Marks Obtained |
|---|---|---|---|---|---|

## Topic-2 Respiration

**Multiple Choice Questions:**

**Q. 1.** Respiratory structures of two different animals, a fish and a human being are as shown.

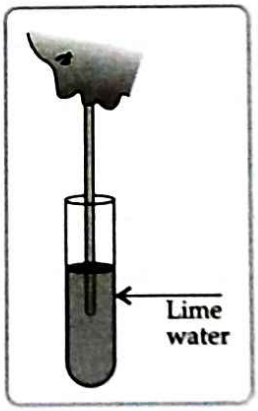



Observe (a) and (b) and select one characteristic that holds true for both of them.

**(A)** Both are placed internally in the body of animal.
**(B)** Both have thin and moist surface for gaseous exchange.
**(C)** Both are poorly supplied with blood vessels to conserve energy.
**(D)** In both, the blood returns to the heart after being oxygenated. **[Board Term-I, 2021] (1)**

**Ans.** .....

**Q. 2.** Observe the activity given below. What does it help to conclude, when the person exhales into the test-tube?




**(A)** Percentage of carbon dioxide is more in inhaled air.
**(B)** Fermentation occurs in the presence of oxygen.
**(C)** Percentage of carbon dioxide is more in the exhaled air.
**(D)** Fermentation occurs in the presence of carbon dioxide. **[Board Term-I, 2021] (1)**

**Ans.** .....

**Assertion and Reason Questions:**

**Directions: In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:**

**(A) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).**
**(B) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).**
**(C) Assertion (A) is true but reason (R) is false.**
**(D) Assertion (A) is false but reason (R) is true.**

**Q. 3. Assertion (A):** Energy is used during the process of respiration.

**Reason (R):** Respiration stores energy in the form of ATP. **(1)**

**Ans.** .....

**Q. 4.** Where does aerobic respiration occur in a cell? **(1)**

**Ans.** .....

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**Q. 5.** When a sportsman runs, he often gets muscle cramps. Why? **(1)**

**Ans.** .....

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**Q. 6.** **(a)** Why is there a difference in the rate of breathing between aquatic organisms and terrestrial organisms? Explain.

**(b)** Draw a diagram of human respiratory system and label - pharynx, trachea, lungs, diaphragm and alveolar sac on it. **[CBSE Delhi Set-I, 2020] (5)**

**Ans.** .....

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## Commonly Made Error

- Students commit errors in labelling the diagram.

## Answering Tip

- Practice drawing the well-labelled diagram of human respiratory system. Don't forget to answer the second part of the question.

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CHAPTER

# 5 LIFE PROCESSES

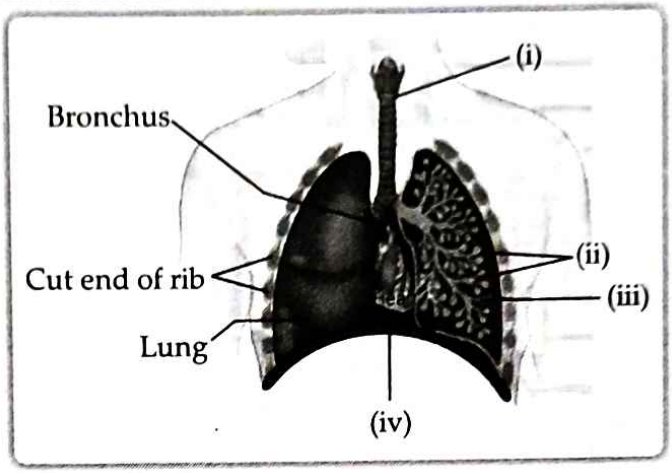
**WORKSHEET-74**

| Name ..... | Class..... | Roll No..... | Time 15 Min. | Max. Marks 09 | Marks Obtained |
|---|---|---|---|---|---|

## Topic-2 Respiration

**Multiple Choice Questions:**

**Q. 1.** Carefully study the diagram of the human respiratory system with labels i, ii, iii and iv. Select the option which gives correct identification and main function and /or characteristic.




**(A)** (i) Trachea: It is supported by bony rings for conducting inspired air.
**(B)** (ii) Ribs: When we breathe out, ribs are lifted.
**(C)** (iii) Alveoli: Thin-walled sac like structures for exchange of gases.
**(D)** (iv) Diaphragm: It is pulled up when we breathe in. **(1)**

**Ans.** .....

**Q. 2.** Organisms break down large food molecules to small molecules. How does this breakdown help the organisms?

**(A)** It releases a lot of energy in the digestive tract that can be used up by the cells.
**(B)** It ensures that there are enough raw materials to produce and supply oxygen to the cells.
**(C)** It converts the large molecules to small molecules that can pass through the cell membrane.
**(D)** It makes sure that the liberation of heat by the breakdown of large molecules does not occur inside the cell. **[CBSE QB (Additional Ques) 2021] (1)**

**Ans.** .....

**Assertion and Reason Questions:**

**Directions: In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:**

**(A) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).**
**(B) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).**
**(C) Assertion (A) is true but reason (R) is false.**
**(D) Assertion (A) is false but reason (R) is true.**

**Q. 3.** **Assertion (A):** Humans are not truly aerobic.
**Reason (R):** They produce lactic acid anaerobically. **(1)**

**Ans.** .....

**Q. 4.** Name the energy currency in the living organisms. When and where is it produced? **(1)**

**Ans.** .....

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**Q. 5.** Stomata of desert plants remain closed during day time. How do they take up $CO_2$ and perform photosynthesis? **(2)**

**Ans.**

**Q. 6.** Explain the activity with diagram to show that carbon dioxide is essential for photosynthesis. **[Board Term-I, 2015] (3)**

**Ans.**

## Commonly Made Error

- Students write answer in essay form. Many of them get confused and write incorrect experimental steps.

## Answering Tips

- Write answers point-wise rather than in the form of an essay.
- Steps should be written in the correct sequence.

CHAPTER

# 5 LIFE PROCESSES

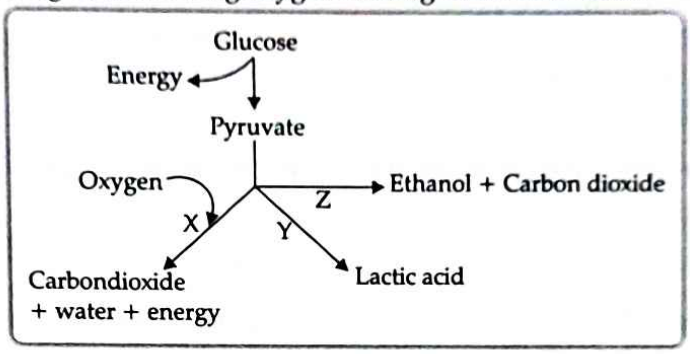
**WORKSHEET-75**

| Name ..... | Class..... | Roll No..... | Time 10 Min. | Max. Marks 08 | Marks Obtained |
|---|---|---|---|---|---|

## Topic-2 Respiration

**Multiple Choice Questions:**

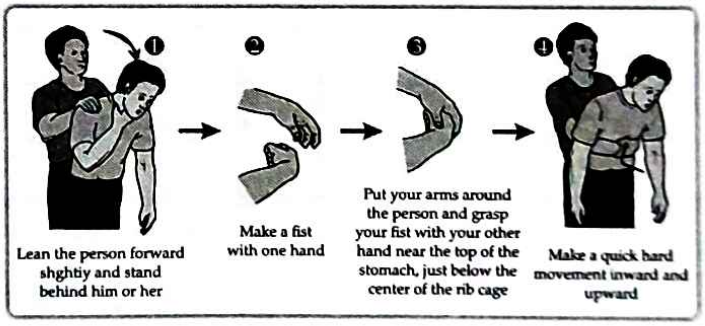
**Q. 1.** Which of the following occurs during oxygen shortage in muscle cells?




(A) Only X (B) Only Y
(C) Only z (D) Any of them – x, y or z **(1)**

**Ans.** .....

**Q. 2.** A person can choke when a piece of food becomes lodged in the windpipe, blocking the flow of air. A first aid procedure to remove the blockage is the Heimlich manoeuvre described below:




By performing this procedure, the piece of food is pushed out of the windpipe. Which of the following causes this to happen?

(A) The expansion of the chest
(B) The air pressed out of the chest
(C) The food pressed out of the stomach
(D) The upward movement of the wall of the food pipe **[CBSE QB (Additional Ques) 2021] (1)**

**Ans.** .....

**Q. 3.** The breakdown of pyruvate to give carbon dioxide, water and energy takes place in

(A) cytoplasm (B) mitochondria
(C) chloroplast (D) nucleus **[NCERT Exemplar] (1)**

**Ans.** .....

**Q. 4.** The correct sequence of anaerobic reactions in yeast is

(A) Glucose $\xrightarrow{\text{cytoplasm}}$ Pyruvate $\xrightarrow{\text{mitochondria}}$ Ethanol + Carbon dioxide

(B) Glucose $\xrightarrow{\text{cytoplasm}}$ Pyruvate $\xrightarrow{\text{cytoplasm}}$ Lactic acid

(C) Glucose $\xrightarrow{\text{cytoplasm}}$ Pyruvate $\xrightarrow{\text{mitochondria}}$ Lactic acid

(D) Glucose $\xrightarrow{\text{cytoplasm}}$ Pyruvate $\xrightarrow{\text{cytoplasm}}$ Ethanol + Carbon dioxide

**[NCERT Exemplar] (1)**

**Ans.** .....

**Assertion and Reason Questions:**

**Directions: In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:**

**(A) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).**

**(B) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).**

**(C) Assertion (A) is true but reason (R) is false.**

**(D) Assertion (A) is false but reason (R) is true.**

**Q. 5. Assertion (A):** In humans, there is a complex respiratory system.
**Reason (R):** Human skin is impermeable to gases. **(1)**

**Ans.** .....

**Q. 6.** Define breathing. Explain the mechanism of breathing in human beings.

**[Board Term I, 2016] (3)**

**Ans.** .....

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CHAPTER

# 5 LIFE PROCESSES

**WORKSHEET-76**

| Name ..... | Class..... | Roll No..... | Time 20 Min. | Max. Marks 14 | Marks Obtained |
|---|---|---|---|---|---|

## Topic-2 Respiration

**Multiple Choice Questions:**

**Q. 1.** During deficiency of oxygen in tissues of human beings, pyruvic acid is converted into lactic acid in the

(A) cytoplasm (B) chloroplast
(C) mitochondria (D) golgi body **[NCERT Exemplar] (1)**

**Ans.** .....

**Q. 2.** Which of the following completes the given equation? Glucose + Oxygen → (?)

(A) Only carbon dioxide + water + energy
(B) Only carbon dioxide + water
(C) Only carbon dioxide
(D) Only water + energy **(1)**

**Ans.** .....

**Q. 3.** Which of the following take place after we exercise?

(A) Our body needs more oxygen.
(B) Our body needs to replace the energy used.
(C) Our body needs to get rid of excess carbon dioxide.
(D) All of these **(1)**

**Ans.** .....

**Q. 4.** Which of these statements is correct about alveoli?

(A) They form a very large surface area.
(B) They have a very thin wall.
(C) They are covered with blood capillaries.
(D) All of these **(1)**

**Q. 5.** As air passes through the nasal cavity, it is

(A) Filtered in the nostrils (B) Moistened by mucus
(C) Warmed to the body temperature (D) All of these **(1)**

**Ans.** .....

**Assertion and Reason Questions:**

**Directions: In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:**

**(A) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).**
**(B) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).**
**(C) Assertion (A) is true but reason (R) is false.**
**(D) Assertion (A) is false but reason (R) is true.**

**Q. 6.** **Assertion (A):** Alveoli contain an extensive network of blood vessels.
**Reason (R):** Alveoli is the site where exchange of gases occurs. **(1)**

**Ans.** .....

**Q. 7.** The rate of breathing in aquatic organisms is much faster than that seen in terrestrial organisms. Give reason. **[Board Term I, 2014] [DDE, 2017] (3)**

**Ans.** .....

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## Commonly Made Error

▶ Students often write vague answer. It seems they are unaware of the concept of rate of breathing.

## Answering Tip

▶ Always be specific and give clear and complete answers. Incomplete and vague answers must be avoided.

**Q. 8.** **(a)** Write the reaction that occurs when glucose breaks down anaerobically in yeast.
**(b)** Write the mechanism by which fish breathe in water.
**(c)** Name the balloon likes structures present in lungs. List its two functions.
**(d)** Name the respiratory pigment and write its role in human beings.

**[CBSE, Comptt. Set. I, II and III, 2018] (5)**

**Ans.** .....

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CHAPTER

# 5 LIFE PROCESSES

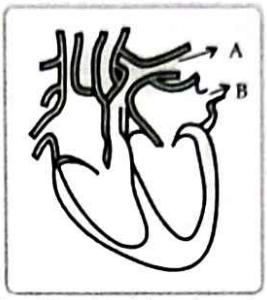
**WORKSHEET-77**

| Name ..... | Class..... | Roll No..... | Time 15 Min. | Max. Marks 11 | Marks Obtained |
|---|---|---|---|---|---|

## Topic-3 Circulation and Transportation

**Multiple Choice Questions:**

**Q. 1.** Consider the following statements in connection with the functions of the blood vessels marked A and B in the diagram of a human heart as shown.




**(i)** Blood vessel A – It carries carbon dioxide rich blood to the lungs.
**(ii)** Blood vessel B – It carries oxygen rich blood from the lungs.
**(iii)** Blood vessel B – Left atrium relaxes as it receives blood from the blood vessel.
**(iv)** Blood vessel A – Right atrium has thick muscular wall as it has to pump blood to the blood vessel.
The correct statements are

**(A)** (i) and (ii) only **(B)** (ii) and (iii) only
**(C)** (ii), (iii) and (iv) **(D)** (i), (ii) and (iii) **[Board Term-I, 2021] (1)**

**Ans.** .....

**Q. 2.** Identify the two components of phloem tissue that help in transportation of food in plants.

**(A)** Phloem parenchyma & sieve tubes
**(B)** Sieve tubes & companion cells
**(C)** Phloem parenchyma & companion cells
**(D)** Phloem fibres and sieve tubes **[Board Term-I, 2021] (1)**

**Ans.** .....

**Assertion and Reason Questions:**

**Directions: In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:**

**(A) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).**
**(B) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).**
**(C) Assertion (A) is true but reason (R) is false.**
**(D) Assertion (A) is false but reason (R) is true.**

**Q. 3.** **Assertion (A):** The muscular walls of ventricles are thicker than auricles.
**Reason (R):** This helps in preventing the back flow of blood. **(1)**

**Ans.** .....

**Q. 4.** Veins are thin walled and have valves. Justify. **[Board SQP, 2020] (1)**

**Ans.** .....

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**Q. 5.** In birds and mammals, the left and right side of the heart are separated. Give reasons.
**[CBSE SQP, 2020] (2)**

Ans.

Q. 6. (a) Write the correct sequence of steps followed during journey of oxygen rich blood from lungs to various organs of human body.

(b) What happens when the system of blood vessels develop a leak? **[O.D., Delhi I, 2020] (5)**

**Concept Applied** ■ ■ ■

"Human Heart- Structure and function".

Ans.



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CHAPTER

# 5 LIFE PROCESSES

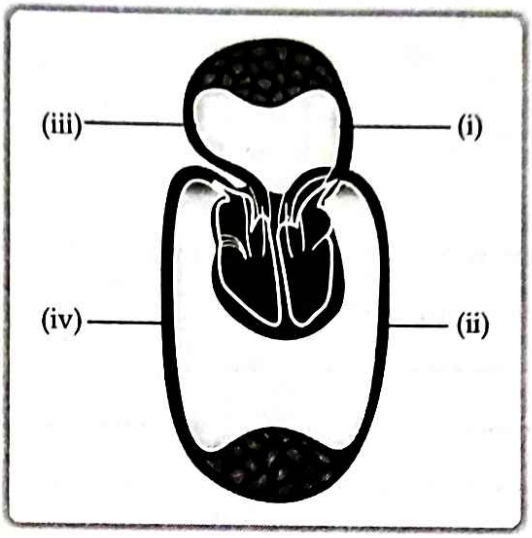
**WORKSHEET-78**

| Name ..... | Class..... | Roll No..... | Time 10 Min. | Max. Marks 06 | Marks Obtained |
|---|---|---|---|---|---|

## Topic-3 Circulation and Transportation

**Multiple Choice Questions:**

**Q. 1.** The figure given below shows a schematic plan of blood circulation in humans with labels (i) to (iv). Identify the correct label with its functions?




**(A)** (i) Pulmonary vein - takes impure blood from body part.
**(B)** (ii) Pulmonary artery - takes blood from lung to heart.
**(C)** (iii) Aorta - takes blood from heart to body parts.
**(D)** (iv) Vena cava takes - blood from body parts to right auricle.

**[Board SQP Term-I, 2021] (1)**

**Ans.** .....

**Q. 2.** Identify the phase of circulation which is represented in the diagram of heart given below. Arrows indicate contraction of the chambers shown.

**(A)** Blood transferred to the right ventricle and left ventricle simultaneously.
**(B)** Blood is transferred to lungs for oxygenation and is pumped into various organs simultaneously.
**(C)** Blood transferred to the right auricle and left auricle simultaneously.
**(D)** Blood is received from lungs after oxygenation and is received from various organs of the body.

**[Board SQP Term-I, 2021] (1)**

**Ans.** .....

**Assertion and Reason Question:**

**Directions: In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:**

**Q. 3.** **Assertion (A):** In human heart, there is no mixing of oxygenated and deoxygenated blood.
**Reason (R):** Valves are present in the heart which allows the movement of blood in one direction only. **(1)**

**(A) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).**

**(B) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).**

**(C) Assertion (A) is true but reason (R) is false.**

**(D) Assertion (A) is false but reason (R) is true.**

**Ans.** .....

**Q. 4.** Name the component of blood which transport:

**(i)** Food, carbon dioxide and nitrogenous wastes.

**(ii)** Oxygen. **[Board Term I, 2016] (1)**

**Ans.** .....

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**Q. 5.** Explain how water and minerals are transported in plants? **[Board Term I, 2015] (2)**

**Ans.** .....

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CHAPTER

# 5 LIFE PROCESSES

**WORKSHEET-79**

| Name ..... | Class..... | Roll No..... | Time 20 Min. | Max. Marks 12 | Marks Obtained |
|---|---|---|---|---|---|

## Topic-3 Circulation and Transportation

**Multiple Choice Questions:**

**Q. 1.** In which of the following groups of organisms, blood flows through the heart only once during one cycle of passage through the body?

**(A)** Rabbit, Parrot, Turtle **(B)** Frog, crocodile, Pigeon

**(C)** Whale, *Labeo*, Penguin **(D)** Shark, dog fish, sting ray **[Board SQP Term-I, 2021] (1)**

**Ans.** .....

**Q. 2.** What is common between extensive network of blood vessels around walls of alveoli and in glomerulus of nephron?

**(A)** Thick walled arteries richly supplied with blood

**(B)** Thin walled veins poorly supplied with blood

**(C)** Thick walled capillaries poorly supplied with blood

**(D)** Thin walled capillaries richly supplied with blood **[Board SQP Term-I, 2021] (1)**

**Ans.** .....

**Assertion and Reason Questions:**

**Directions: In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:**

**(A) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).**

**(B) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).**

**(C) Assertion (A) is true but reason (R) is false.**

**(D) Assertion (A) is false but reason (R) is true.**

**Q. 3. Assertion (A):** Valves are present in the arteries.

**Reason (R):** Arteries carry oxygenated blood from heart to different body parts except pulmonary artery. **(1)**

**Ans.** .....

**Q. 4.** Name the process of loss of water in the form of vapour from the aerial parts of the plants. **[Board Term I, 2016] (1)**

**Ans.** .....

**Q. 5.** Name the material transported by the following:

**(i)** Xylem **(ii)** Pulmonary artery

**(iii)** Pulmonary veins **(iv)** Phloem. **(2)**

**Ans.** .....

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**Q. 6.** Write three types of blood vessels. Give one important feature of each.
**[CBSE Board Delhi, Set- I, 2019] (3)**

**Ans.**

**Q. 7.** List two types of the transport system in human beings and write the functions of any one of these.
**[Board Outside Delhi, Set- II, 2019] (3)**

**Ans.**

## Commonly Made Error

- Students write irrelevant stories. Be specific. Read question carefully and write only what is asked.

## Answering Tip

- Comprehend what is being asked before answering by reading the question carefully.

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# 5 LIFE PROCESSES

## WORKSHEET-80

| Name ..... | Class..... | Roll No..... | Time 20 Min. | Max. Marks 12 | Marks Obtained |
|---|---|---|---|---|---|

## Topic-3 Circulation and Transportation

**Multiple Choice Questions:**

**Q. 1.** Which of the following plays the important role of creating a suction force which pulls water upwards from the roots of a tree to its leaves?

(A) gravitation (B) respiration
(C) transpiration (D) photosynthesis

**[CBSE QB (Additional Ques) 2021] (1)**

**Ans.** .....

**Q. 2.** During transpiration, water is lost in the form of water vapour through _____.

(A) xylem (B) phloem
(C) stomata (D) root hair **[CBSE QB (Additional Ques) 2021] (1)**

**Ans.** .....

**Assertion and Reason Questions:**

**Directions: In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:**

**(A) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).**
**(B) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).**
**(C) Assertion (A) is true but reason (R) is false.**
**(D) Assertion (A) is false but reason (R) is true.**

**Q. 3.** **Assertion (A):** Plants have low energy needs.

**Reason (R):** Plant bodies have large proportion of dead cells. **(1)**

**Ans.** .....

**Q. 4.** Name the tissues which (i) transport soluble products of photosynthesis in plants, (ii) transport water and minerals in a plant. **[Board Term I, 2014] (1)**

**Ans.** .....

**Q. 5.** Define the term transpiration. Design an experiment to demonstrate this process.

**[CBSE Board, Delhi, Set- I, 2019] (3)**

**Ans.** .....

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## Commonly Made Error

- Sometimes it is hard for examiner to figure out that what student is trying to say in their answers as students use complex language.

## Answering Tip

- Always be specific and give clear and complete answers. Incomplete and vague answers must be avoided.

**Q. 6.** **(a)** Mention any two components of blood.

**(b)** Trace the movement of oxygenated blood in the body.

**(c)** Write the function of valves present in between atria and ventricles.

**(d)** Write the structural difference between the composition of artery and veins.

**[CBSE Delhi & O.D. Set-I 2018] (5)**

**Ans.**

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CHAPTER

# 5 LIFE PROCESSES

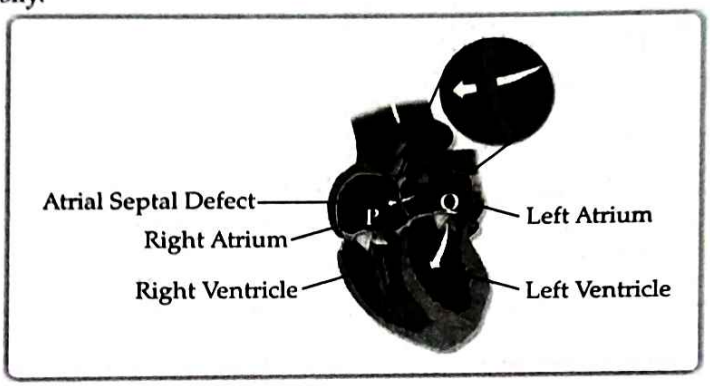
## WORKSHEET-81

| Name ..... | Class..... | Roll No..... | Time 10 Min. | Max. Marks 05 | Marks Obtained |
|---|---|---|---|---|---|

## Topic-3 Circulation and Transportation

**Multiple Choice Questions:**

**Q. 1.** Some adults have a defective heart since birth. They are born with a hole between the left atrium and right atrium (shown below), this defect is called the Atrial Septal Defect (ASD). Due to the hole between the atria, oxygenated blood gets mixed with deoxygenated blood. A symptom of this disease is to feel tired easily.




Which of the following is likely to happen in people with ASD in a single cycle of blood flow?

**(A)** The kidneys will filter out more carbon oxide.

**(B)** The blood will take up more oxygen from the lungs.

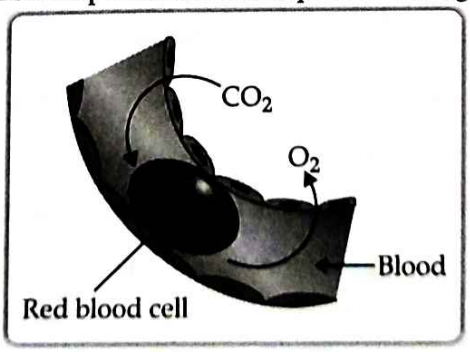
**(C)** The muscles will receive blood containing less oxygen.

**(D)** The lungs will receive blood containing more carbon dioxide.

**[CBSE QB (Additional Ques) 2021] (1)**

**Ans.** .....

**Q. 2.** Given below is a diagrammatic representation of a process taking place in the human body.




In which of these regions/organs could it be occurring?

**(i)** Lungs

**(ii)** Heart

**(iii)** Brain

**(A)** only in (i)

**(B)** only in (ii)

**(C)** only in (i) and (ii)

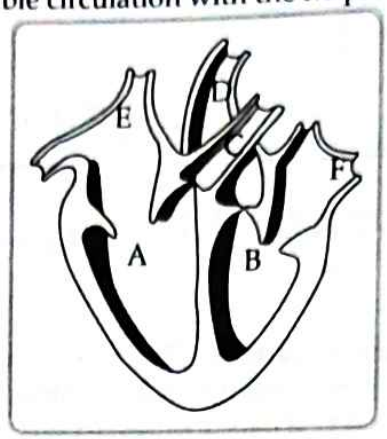
**(D)** in all - (i), (ii) and (iii)

**[CBSE QB (Additional Ques) 2021] (1)**

**Ans.** .....

**Q. 3.** (i) Identify any two parts from the diagram given which carry oxygenated and deoxygenated blood.

(ii) Explain the process of double circulation with the help of a flow chart.




**[Board SQP, 2020] (3)**

**Concept Applied** ■ ■ ■

"Double circulation in humans".

**Ans.**

## Commonly Made Error

- Some students forget labelling after drawing the diagram.

## Answering Tip

- Practice drawing neat, and well-labelled diagram of human heart. Incorrect labelling may deduct your marks.

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CHAPTER

# 5 LIFE PROCESSES

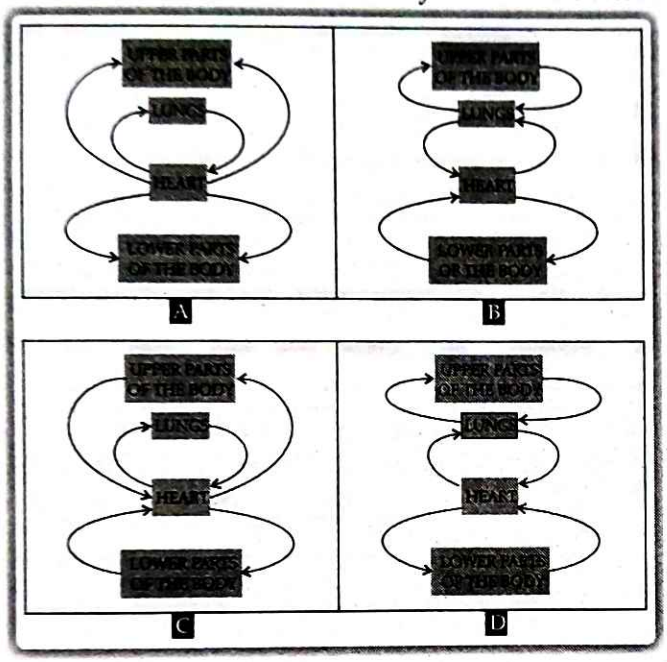
## WORKSHEET-82

| Name ..... | Class..... | Roll No..... | Time 20 Min. | Max. Marks 12 | Marks Obtained |
|---|---|---|---|---|---|

## Topic-3 Circulation and Transportation

**Multiple Choice Questions:**

**Q. 1.** Which of these flowcharts correctly shows the circulation of blood in the human body?




**[CBSE QB (Additional Ques) 2021] (1)**

**Ans.** .....

**Q. 2.** What prevents back flow of blood inside the heart during contraction?

**(A)** Valves in heart
**(B)** Thick muscular walls of ventricles
**(C)** Thin walls of atria
**(D)** All of the above **(1)**

**Ans.** .....

**Q. 3.** Single circulation, i.e., blood flows through the heart only once during one cycle of passage through the body, is exhibited by

**(A)** *Labeo, Chameleon, Salamander* **(B)** *Hippocampus, Exocoetus, Anabas*
**(C)** *Hyla, Rana, Draco* **(D)** Whale, Dolphin, Turtle **(1)**

**Ans.** .....

**Q. 4.** Define transpiration. State its two functions. **[Board Outside Delhi Set, 2019] (3)**

**Ans.** .....

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Q. 5. (a) What is translocation? Why is it essential for plants?
(b) Where do the substances in plants reach as a result of translocation?
**[Board Outside Delhi, Set-I, 2019] (3)**

**Ans.**

Q. 6. (i) Mention the site of exchange of material between the blood and surrounding cells.
(ii) Draw a schematic representation of transport and exchange of oxygen and carbon dioxide.
**[Board Term I, 2016] (3)**

**Ans.**

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CHAPTER

# 5 LIFE PROCESSES

**WORKSHEET-83**

| Name ..... | Class..... | Roll No..... | Time 20 Min. | Max. Marks 19 | Marks Obtained |
|---|---|---|---|---|---|

## Topic-4 Excretion

**Multiple Choice Questions:**

**Q. 1.** Which one among the following is not removed as a waste product from the body of a plant?

(A) Resins and Gums (B) Urea

(C) Dry Leaves (D) Excess Water **[Board Term-I, 2021] (1)**

**Ans.** .....

**Q. 2.** Plants use completely different process for excretion as compared to animals. Which one of the following processes is NOT followed by plants for excretion?

(A) They can get rid of excess water by transpiration.

(B) They selectively filter toxic substances through their leaves.

(C) Waste products are stored as resins and gums in old xylem.

(D) They excrete waste substances into the soil around them. **[Board SQP Term-I, 2021] (1)**

**Ans.** .....

**Assertion and Reason Questions:**

**Directions: In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:**

**(A) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).**

**(B) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).**

**(C) Assertion (A) is true but reason (R) is false.**

**(D) Assertion (A) is false but reason (R) is true.**

**Q. 3. Assertion (A):** Resins and gums are stored in old xylem tissue in plants.

**Reason (R):** Resins and gums facilitate transport of water molecules. **[CBSE SQP, 2021] (1)**

**Ans.** .....

**Q. 4.** Mention the respiratory unit of lungs and excretory unit of kidneys.

**[Board Term I, 2015] [DDE, 2017] (1)**

**Ans.** .....

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**Q. 5.** What is excretion? How do unicellular organisms remove their wastes? **(2)**

**Ans.** .....

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**Q. 6.** Mention the pathway of urine starting from the organ of its formation. Name four substances which are re-absorbed from the initial filtrate in the tubular part of the nephron. **[Board Term I, 2016] (3)**

**Ans.** .....

Q. 7. (a) Name the organs that form the excretory system in human beings. **[Delhi I, 2020] (5)**

(b) Describe in brief how urine is produced in human body.

**Concept Applied** ■ ■ ■

"Excretory system in humans" and "Urine formation".

**Ans.**

Q. 8. (a) Draw a diagram of human excretory system and label the following parts on it:

(i) Right Renal Artery (ii) Vena cava. (iii) Urinary bladder (iv) Left kidney

(b) List two vital functions of kidney. **[Board Term I, 2015; Board Term I, 2016] (5)**

**Concept Applied** ■ ■ ■

"Human excretory system- Structure and function".

**Ans.**

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CHAPTER

# 5 LIFE PROCESSES

**WORKSHEET-84**

| Name ..... | Class..... | Roll No..... | Time 15 Min. | Max. Marks 09 | Marks Obtained |
|---|---|---|---|---|---|

## Topic-4 Excretion

**Multiple Choice Questions:**

**Q. 1.** In a person, the tubule part of the nephron is not functioning at all. What will its effect be on urine formations?

**(A)** The urine will not be formed.

**(B)** Quality and quantity of urine is unaffected.

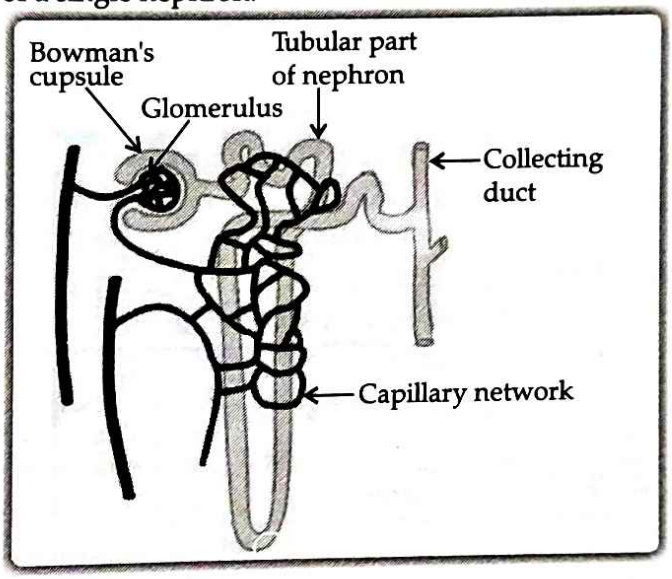
**(C)** Urine is more concentrated.

**(D)** Urine is more diluted.

**[Board SQP Term-I, 2021] (1)**

**Ans.** .....

**Q. 2.** Observe the image of a single nephron.




The amount of liquid passing in the form of glomerular filtrate is approximately 150-180 litres per day whereas the amount of urine flowing out of all the nephrons is only 1.5 to 1.8 litres per day. Water is getting re-absorbed.

In which part of the nephron could the water be getting re-absorbed?

**(A)** in the Bowman's cup **(B)** in the long tubular part

**(C)** in the collecting duct **(D)** in the glomerulus

**[CBSE QB (Additional Ques) 2021] (1)**

**Ans.** .....

**Assertion and Reason Questions:**

**Directions: In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:**

**(A) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).**

**(B) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).**

**(C) Assertion (A) is true but reason (R) is false.**

**(D) Assertion (A) is false but reason (R) is true.**

**Q. 3. Assertion (A):** Human body produces highly toxic substances, which if not eliminated may cause the death.

**Reason (R):** Excretory substances removes nitrogenous waste from the body. **(1)**

Ans. ..... [NCERT] (1)

Q. 4. How is the amount of urine produced regulated?

Ans. .....

Q. 5. (a) Define excretion.

(b) Name the basic filtration unit present in the kidney.

(c) Draw excretory system in human being and label the following organs of excretory system which perform following functions:

(i) form urine

(ii) is a long tube which collects urine from kidney

(iii) store urine until it is passed out. [CBSE Delhi, O.D., Set 2018] (5)

Ans. .....

## Commonly Made Error

▶ Students fail to draw a neat diagram. Also, they label, some irrelevant parts. Avoid this. Make sure the lines are properly marked. Lines which are not properly marked will deduct your marks.

## Answering Tip

▶ Practice drawing the well-labelled diagram of human excretory system. Incorrect labelling may deduct your marks. Avoid being in hurry. Read question properly and then answer.

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CHAPTER

# 5 LIFE PROCESSES

**WORKSHEET-85**

| Name ..... | Class..... | Roll No..... | Time 25 Min. | Max. Marks 15 | Marks Obtained |
|---|---|---|---|---|---|

## Topic-4 Excretion

**Multiple Choice Questions:**

Q. 1. The filtration units of kidneys are called

(A) ureter (B) urethra

(C) neurons (D) nephrons **[NCERT Exemplar] (1)**

**Ans.** .....

Q. 2. The kidneys in human beings are a part of the system for

(A) nutrition (B) respiration

(C) excretion (D) transportation **[NCERT Exemplar] (1)**

**Ans.** .....

Q. 3. Match the words of Column (A) with that of Column (B)

| S. No. | Column (A) | | Column (B) |
|---|---|---|---|
| A | Phloem | (i) | Excretion |
| B | Nephron | (ii) | Translocation of food |
| C | Veins | (iii) | Clotting of blood |
| D | Platelets | (iv) | Deoxygenated blood |

(A) A - (ii), B - (i), C - (iv), D - (iii) (B) A - (iii), B - (ii), C - (i), D - (iv)

(C) A - (iv), B - (iii), C - (ii), D - (i) (D) A - (i), B - (iv), C - (iii), D - (iv)

**[NCERT Exemplar] (1)**

**Ans.** .....

Q. 4. 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 **[NCERT Exemplar] (1)**

**Ans.** .....

**Assertion and Reason Questions:**

**Directions: In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:**

**(A) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).**

**(B) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).**

**(C) Assertion (A) is true but reason (R) is false.**

**(D) Assertion (A) is false but reason (R) is true.**

Q. 5. **Assertion (A):** Excretory unit of kidneys are nephrons.

**Reason (R):** It has no role in secretion of urine. **(1)**

**Ans.** .....

Q. 6. List two major steps involved in the formation of urine and state in brief their functions. **(2)**

**Concept Applied** ■ ■ ■

"Urine formation".

**Ans.** .....

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**Q. 7.** Write two major components of human urine. **(2)**

**Ans.** .....

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**Q. 8.** Name one nitrogenous waste present in urine. What is the basic filtration unit of kidney called? How is the amount of urine produced regulated? **[Board Term I, 2016] (3)**

**Ans.** .....

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**Q. 9.** How do leaves of plants help in excretion? **(3)**

**Concept Applied** ■ ■ ■

"Excretion in plants".

**Ans.** .....

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CHAPTER

# 5 LIFE PROCESSES

**WORKSHEET-86**

| Name ..... | Class..... | Roll No..... | Time 15 Min. | Max. Marks 07 | Marks Obtained |
|---|---|---|---|---|---|

## Topic-4 Excretion

**Multiple Choice Question:**

Q. 1. Which of the following substances are removed from blood in the kidneys?

(A) Water (B) Urea

(C) Sodium (D) Ammonia (1)

Ans. .....

**Assertion and Reason Questions:**

**Directions: In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:**

**(A) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).**

**(B) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).**

**(C) Assertion (A) is true but reason (R) is false.**

**(D) Assertion (A) is false but reason (R) is true.**

Q. 2. **Assertion (A):** Haemodialysis can save the life of patients with kidney failure.

**Reason (R):** Waste products like urea can be removed from the blood by haemodialysis. (1)

Ans. .....

Q. 3. (a) How do leaves of plants help in excretion? Explain briefly.

(b) Describe the structure and function of a nephron. **[O.D. II, 2020]** (5)

Ans. .....

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CHAPTER

# 5 LIFE PROCESSES

**WORKSHEET-87**

| Name ..... | Class..... | Roll No..... | Time 10 Min. | Max. Marks 04 | Marks Obtained |
|---|---|---|---|---|---|

## COMPETENCY BASED QUESTIONS

**I. Read the given passage and answer any four questions from Q. 1 to Q. 5.**

All living cells require energy for various activities. This energy is available by the breakdown of simple carbohydrates either using oxygen or without using oxygen. **[CBSE SQP 2020]**

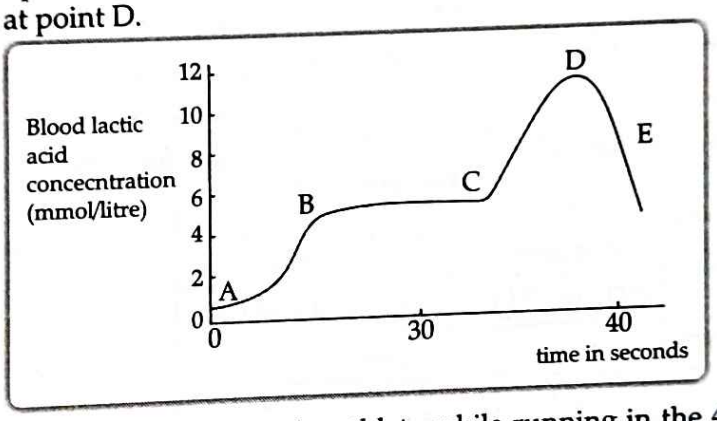
**Q. 1.** Energy in the case of higher plants and animals is obtained by **(1)**

**(A)** Breathing **(B)** Tissue respiration

**(C)** Organ respiration **(D)** Digestion of food

**Ans.** .....

**Q. 2.** The graph below represents the blood lactic acid concentration of an athlete during a race of 400 m and shows a peak at point D. **(1)**



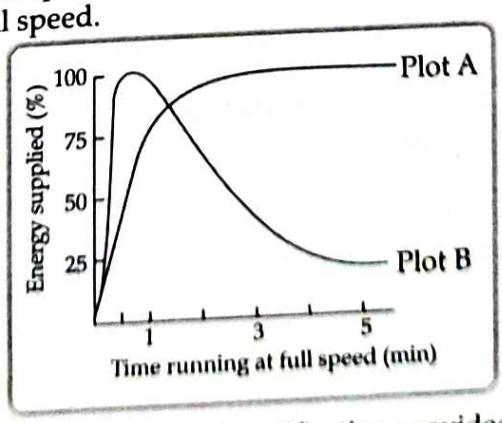

Lactic acid production has occurred in the athlete while running in the 400 m race. Which of the following processes explains this event?

**(A)** Aerobic respiration **(B)** Anaerobic respiration

**(C)** Fermentation **(D)** Breathing

**Ans.** .....

**Q.3.** Study the graph below that represents the amount of energy supplied with respect to the time while an athlete is running at full speed. **(1)**




Choose the correct combination of plots and justification provided in the following table.

| | Plot A | Plot B | Justification |
|---|---|---|---|
| (A) | Aerobic | Anaerobic | Amount of energy is low and inconsistent in aerobic and high in anaerobic |
| (B) | Aerobic | Anaerobic | Amount of energy is high and consistent in aerobic and low in anaerobic |
| (C) | Anaerobic | Aerobic | Amount of energy is high and consistent in aerobic and low in anaerobic |
| (D) | Anaerobic | Aerobic | Amount of energy is high and inconsistent in anaerobic and low in aerobic |

**Ans.** .....

**Q. 4.** The characteristic processes observed in anaerobic respiration are

**(i)** presence of oxygen
**(ii)** release of carbon dioxide
**(iii)** release of energy
**(iv)** release of lactic acid

**(1)**

**(A)** (i), (ii) only **(B)** (i), (ii), (iii) only
**(C)** (ii), (iii), (iv) only **(D)** (iv) only

**Ans.** .....

**Q. 5.** Study the table below and select the row that has the incorrect information.

| | | Aerobic | Anaerobic |
|---|---|---|---|
| **(A)** | Location | Cytoplasm | Mitochondria |
| **(B)** | End Product | $CO_2$ and $H_2O$ | Ethanol and $CO_2$ |
| **(C)** | Amount of ATP | High | Low |
| **(D)** | Oxygen | Needed | Not needed |

**(1)**

**Ans.** .....

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CHAPTER

# 5 LIFE PROCESSES

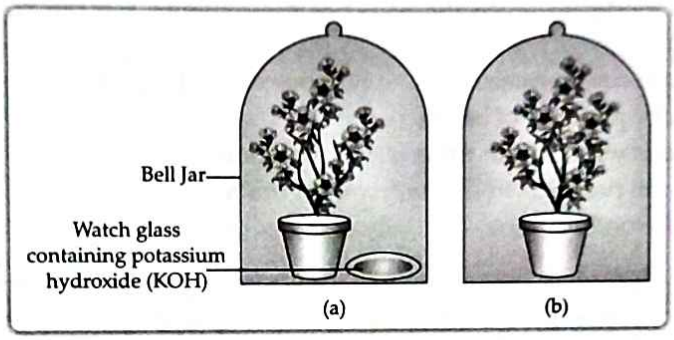
## WORKSHEET-88

| Name ..... | Class..... | Roll No..... | Time 10 Min. | Max. Marks 08 | Marks Obtained |
|---|---|---|---|---|---|

## COMPETENCY BASED QUESTIONS

**I. Read the given passage and answer the following questions:**

The Figure shown below represents an activity to prove the requirements for photosynthesis. During this activity, two healthy potted plants were kept in the dark for 72 hours. After 72 hours, KOH is kept in the watch glass in setup X and not in setup Y. Both these setups are air tight and have been kept in light for 6 hours. Then, Iodine Test is performed with one leaf from each of the two plants X and Y.




**[CBSE SQP 2021]**

**Q. 1.** This experimental setup is used to prove essentiality of which of the following requirements of photosynthesis? **(1)**

**(A)** Chlorophyll **(B)** Oxygen
**(C)** Carbon dioxide **(D)** Sunlight

**Ans.** .....

**Q. 2.** The function of KOH is to absorb **(1)**

**(A)** Oxygen **(B)** Carbon dioxide
**(C)** Moisture **(D)** Sunlight

**Ans.** .....

**Q. 3.** Which of the following statements shows the correct results of Iodine Test performed on the leaf from plant X and Y respectively? **(1)**

**(A)** Blue-Black would be obtained on the leaf of plant X and no change in colour on leaf of plant Y.
**(B)** Blue-black colour would be obtained on the leaf of plant Y and no change in colour on leaf of plant X.
**(C)** Red colour would be obtained on the leaf of plant X and brown colour on the leaf of plant Y.
**(D)** Red colour would be obtained on the leaf of plant Y and brown colour on the leaf of plant X.

**Ans.** .....

**Q. 4.** Which of the following steps can be followed for making the apparatus air tight? **(1)**

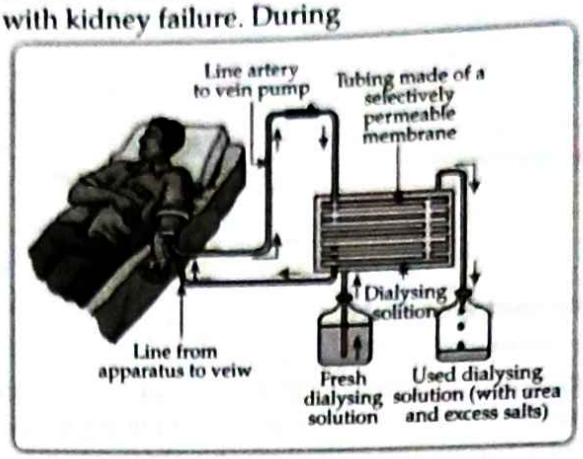
**(i)** placing the plants on glass plate
**(ii)** using a suction pump
**(iii)** applying vaseline to seal the bottom of jar
**(iv)** creating vaccum

**(A)** (i) and (ii) **(B)** (ii) and (iii)
**(C)** (i) and (iii) **(D)** (ii) and (iv)

**Ans.** .....

**II. Read the given passage and answer the following questions:**

The figure shown below represents a common type of dialysis called as Haemodialysis. It removes waste products from the blood, such as excess salts, and urea which are insufficiently removed by the kidney in patients with kidney failure. During




the procedure, the patient's blood is cleaned by filtration through a series of semi-permeable membranes before being returned to the blood of the patients. On the basis of this, answer the following questions:

**Q. 1.** The haemodialyser has semi-permeable lining of tubes which help to: **(1)**

**(A)** To maintain osmotic pressure of blood.
**(B)** To filter nitrogenous wastes from the dialysing solution.
**(C)** In passing the waste products in the dialysing solution.
**(D)** To pump purified blood back into the body of the patient.

**Ans.** .....

**Q. 2.** Which one of the following is not a function of Artificial Kidney? **(1)**

**(A)** To remove nitrogeneous wastes from the blood.
**(B)** To remove excess fluids from the blood.
**(C)** To reabsorb essential nutrients from the blood.
**(D)** To filter and purify the blood.

**Ans.** .....

**Q. 3.** The 'used dialysing' solution is rich in; **(1)**

**(A)** Urea and excess salts **(B)** Blood cells
**(C)** Lymph **(D)** Proteins

**Ans.** .....

**Q. 4.** Which part of the nephron in human kidney, serves the function of reabsorption of certain substances? **(1)**

**(A)** Glomerulus **(B)** Bowman's Capsule
**(C)** Tubules **(D)** Collecting duct

**Ans.** .....

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CHAPTER

# 5 LIFE PROCESSES

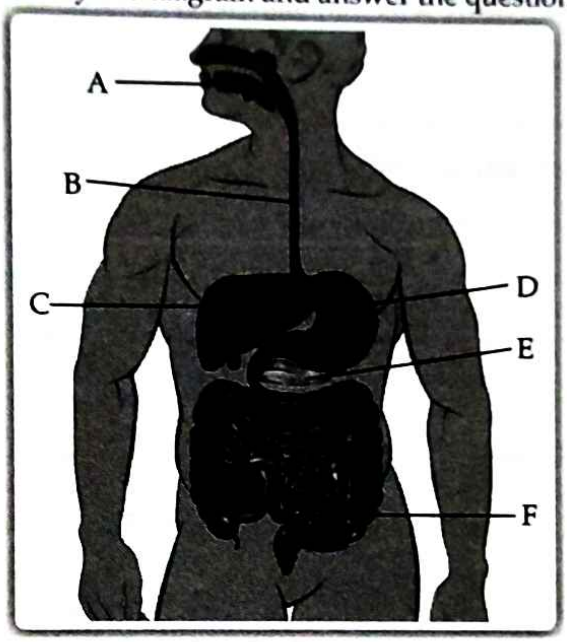
**WORKSHEET-89**

| Name ..... | Class..... | Roll No..... | Time 15 Min. | Max. Marks 08 | Marks Obtained |
|---|---|---|---|---|---|

## COMPETENCY BASED QUESTIONS

**I. Read the passage and answer the following questions.**

The given diagram is of human digestive system. The human's digestive system is made up of the gastrointestinal (GI) tract and liver, pancreas and gallbladder. The GI tract is a series of hollow organs that are connected to each other from your mouth to your anus. The organs that make up your GI tract, in the order that they are connected, include your mouth, esophagus, stomach, small intestine, large intestine and anus. Study the diagram and answer the questions given below:




**Q. 1.** Identify the labels B, C, D and E. **(1)**

**Ans.** .....

**Q. 2.** What are the final product after digestion of carbohydrates and proteins? **(1)**

**Ans.** .....

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**Q. 3.** Name the secretion that is released by label C. How it helps in fat digestion. **(1)**

**Ans.** .....

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Q. 4. Name the major process in region F, which is no longer occurring normally in case of diarrhoea. (1)

Ans. .....

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II. **Read the passage and answer the following questions below:**

Oxygen-rich blood from the lungs comes to the thin-walled upper chamber of the heart on the left. The left upper chamber (A) then relaxes. It then contracts and the blood is allowed to enter the next chamber (B), as it expands. When the muscular left lower chamber of heart contracts the blood is pumped out to the body via aorta.

Deoxygenated blood reaches from the body to the upper chamber on the right side of heart (C) and it expands. As this part contracts, the corresponding lower chamber (D) dilates. This transfers the blood to right ventricle, which in turn pumps it to the lungs for oxygenation.

Q. 1. What does A, B, C and D represents in the above passage. (1)

Ans. .....

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Q. 2. Name the chambers of human heart, which contain oxygenated blood? (1)

Ans. .....

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Q. 3. State two differences between arteries and veins. (1)

Ans. .....

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Q. 4. Ventricles have thicker muscular walls than atria. Give reason. (1)

Ans. .....

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