

**BCM SCHOOL**  
**BASANT AVENUE, DUGRI ROAD, LUDHIANA**  
**Class VII SCIENCE**  
**Assignment**

**General Instructions:**

1. Q. 1 to 3 are multiple choice type questions carries 1 mark each.
2. Q.4 to 5 are Assertion- Reason type questions carries 1 mark each.
3. Q.6 is very short answer type question carries 2 marks.
4. Q. 7 is short answer type question carries 3 marks.
5. Q. 8 to 9 are long answer type questions carries 5 marks each.
6. Q. 10 is Case Study based question.

Tick the correct option

1. A student adds vinegar to baking soda. Bubbles are formed and gas is released.  
What does this indicate?  
A. A physical change because the gas disappears later  
B. A chemical change because a new substance is formed.  
C. A reversible change because vinegar can be recovered  
D. A physical change because the change is temporary.

2. Riya tears a sheet of paper into small pieces and then burns one piece.

Which of the following statements is true?

- A. Both tearing and burning are physical changes
- B. Tearing is a chemical change and burning is a physical change
- C. Tearing is a physical change but burning is a chemical change
- D. Both tearing and burning are chemical changes

3. Rohan observed that when he ran fast, his breathing became faster. The reason is —

- A. His lungs stopped working properly
- B. More oxygen is needed to release extra energy
- C. Less oxygen is required during running
- D. The heart starts working slowly

The questions (4-5) below consist of an assertion and a reason. Use the following key to choose the appropriate answer.

- (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 the correct explanation of A.
- (c) A is true but R is false.
- (d) A is false but R is true

4. Assertion (A): Dissolving salt in water is a chemical change.

Reason (R): The salt can be recovered from the solution by evaporation.

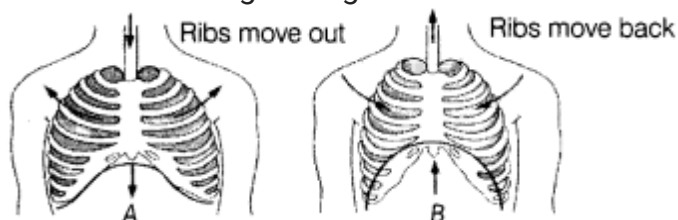
5. Assertion (A): Inhaled air contains more oxygen than exhaled air.

Reason (R): Oxygen is used up inside the body for energy production.

6. Write word equations for two chemical reactions with the help of materials given in the box.

Air, copper sulphate, iron, vinegar, iron oxide, carbon, dioxide, iron sulphate, copper, lime water, water

7. A Observe the given figures as A and B and answer the following questions.



(a) Among both figures identify which A or B indicates the process of inhalation and which shows the process of exhalation?

(b) In the figure label the arrows and indicate the direction of

- movement of air
- movement of diaphragm
- movement of ribs

8. A student took a solution of copper sulphate in a beaker and put a clean iron nail into it and left it for about an hour.

(a) What changes do you expect?

(b) Are these changes chemical in nature?

(c) Write a word equation for the chemical change, if any.

9. Respiration can occur in two different manners. Briefly explain the process of aerobic respiration. How does it differ from anaerobic respiration?

10. Paheli participated in a 400 m race competition held at her school and won the race. When she came home she had mixed feelings of joy and pain as she had cramps in her leg muscles. After a massage, she was relieved of the pain. Answer the following questions related to the situation.

(a) What can be the possible reasons for the pain in her legs?

(b) Why did she feel comfortable after a massage?