

	B.C.M SCHOOL BASANT AVENUE DUGRI ROAD, LUDHIANA ASSIGNMENT OF CLASS-IX SUBJECT- SCIENCE DATE- OCTOBER 28,2024 CHAPTER - 3 ATOMS AND MOLECULES CHAPTER-10 GRAVITATION(THRUST AND PRESSURE)
	MCQ
1.	<p>Which of the following statements is incorrect regarding Dalton's atomic theory?</p> <p>(A) Atoms of different elements are different in all respects. (B) Atoms are indivisible particles. (C) Atoms of the same element are identical in all respects. (D) Atoms combine in simple whole-number ratios to form compounds.</p>
2.	<p>The statement that the upward buoyant force that is exerted on a body immersed in a fluid, whether fully or partially, is equal to the weight of the fluid that the body displaces is related to:</p> <p>(A)Archimedes' Principle (B)Bernoulli's Principle (C)Beer Lambert Law (D)Pascal's Law</p>
	ASSERTION REASON
	<p>(A) Both Assertion and Reason are the true and Reason is a correct explanation of Assertion. (B) Both Assertion and Reason are the true but Reason is not a correct explanation of Assertion. (C) Assertion is true and Reason is false. (D) Assertion is false and Reason is true. (E) Both Assertion and Reason are false</p>
3	<p>Assertion: The law of constant proportions is applicable to compounds. Reason: A chemical compound always contains the same elements combined in a fixed ratio.</p>
4	<p>Assertion: Ionic compounds have high melting and boiling points. Reason: Ionic compounds consist of positive and negative ions held together by strong electrostatic forces of attraction.</p>

5	<p>Assertion : An object floats if it displaces an amount of liquid whose weight is greater than the actual weight of the object.</p> <p>Reason : During floatation an object experiences no net force in the downward direction.</p>
<p>GIVE ANSWER OF THE FOLLOWING QUESTIONS</p>	
6	<p>As per the law of definite proportion, carbon and oxygen combine in the ratio of 3 : 8. Compute the mass of oxygen gas that would be required to react completely with 15 g carbon.</p>
7	<p>Calculate the molecular mass of $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$</p>
8	<p>A pressure of 1.5 pascal acts on a surface of area 13 square centimetres. Calculate the actual thrust acting on the surface in newton.</p>
9	<p>How is thrust related to pressure?</p>
<p>CASE STUDY</p>	
10	<p>Archimedes' principle, stated as follows: When a body is immersed fully or partially in a fluid, it experiences an upward force that is equal to the weight of the fluid displaced by it. The upward force is known as up thrust or buoyant force. In fact, all objects experience a force of buoyancy when they are immersed in a fluid. The magnitude of this buoyant force depends on the density of the fluid. Objects having density less than that of the liquid in which they are immersed float on the surface of the liquid. If the density of the object is more than the density of the liquid in which it is immersed then it sinks in the liquid. Hence body will float or sink depends upon difference between density of body and fluid.</p> <p>(i) The up thrust of the body is equal to the</p> <p>(A) Mass of liquid</p> <p>(B) Weight of liquid</p> <p>(C) Weight of liquid displaced by body</p>

(D)None of these

(ii). If the density of the object is more than the density of the liquid in which it is immersed then

(A)It sinks in liquid

(B)It floats on liquid

(C)It comes out of liquid

(D)None of these

(iii) When anybody immersed in liquid it experience a force called as

(A)Gravitational force

(B)Buoyancy force

(C)Nuclear force

(D)None of these

(iv) State Archimedes' principle.

(v) Why does cube of plastic released deep down under the water come up to surface of water?