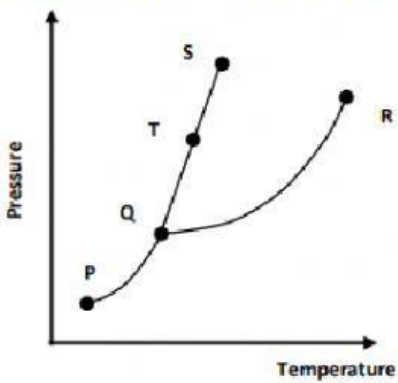
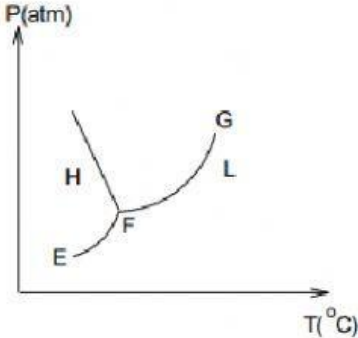


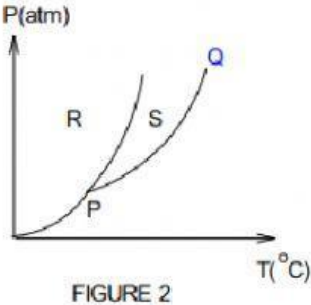
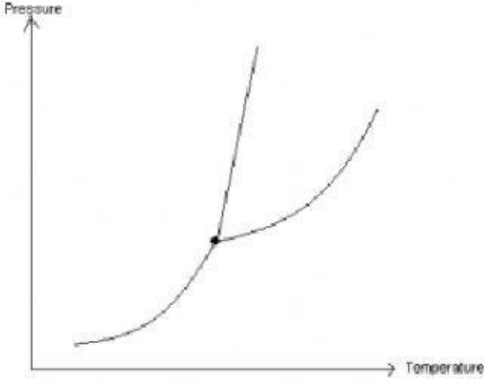
CHEMBUDDY CHAPTER 5
5.4 PHASE DIAGRAM



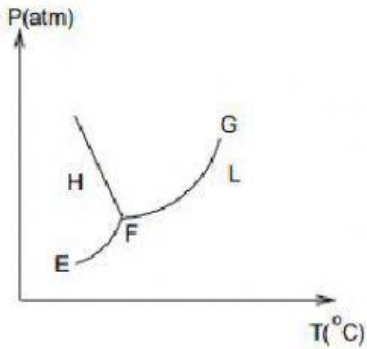
CHOOSE THE CORRECT ANSWER

NO	QUESTION	ANS
1	<p>Why ice floats in water at 1atm pressure? (C1 & C2)</p> <p>A. volume expands when water freezes</p> <p>B. the fusion process is endothermic</p> <p>C. the intermolecular forces between water molecules increase as ice change of liquid</p> <p>D. vapour pressure of liquid water decrease as it freezes</p>	<p>A</p> <p>B</p> <p>C</p> <p>D</p>
2	<p>Based on the phase diagram of pure substance X, choose the correct statement. (C1 & C2)</p>  <p>A. S is the critical point of X.</p> <p>B. Solid X and gas X exist in equilibrium at point T.</p> <p>C. The density solid X is higher than of liquid X.</p> <p>D. The melting point and boiling point increase with the increase in pressure.</p>	<p>A</p> <p>B</p> <p>C</p> <p>D</p>
3	<p>Choose the INCORRECT statement based on the phase diagram of a material below. (C1 & C2)</p>  <p>I. Line F-G is known as the solid-gas equilibrium line.</p> <p>II. The triple point is F.</p> <p>III. The critical point is G.</p> <p>IV. The substance changes from solid to gas in going from point H to point L.</p>	<p>A</p> <p>B</p> <p>C</p> <p>D</p>



4	<p>Figure 2 shows phase diagram for compound Y.</p>  <p>FIGURE 2</p> <p>Which of the following statements is CORRECT? (C1 & C2)</p> <ol style="list-style-type: none"> Compound Y is H_2O At point P substance can exist in equilibrium in the liquid, solid, and gaseous states at the same temperature and pressure. Phase change from liquid to gas from point R to S Point Q is critical point 	<p>A B C D</p>
5	<p>Choose the INCORRECT statement about the phase diagram of CO_2 in figure below. (C1 & C2)</p>  <ol style="list-style-type: none"> Increase temperature will not melt certain solid compound Solid state is denser than liquid state Solid state is less dense than liquid state At a constant pressure below the triple point X, a solid will sublime as the temperature is increased 	<p>A B C D</p>
6	<p>Where on the phase diagram can you locate conditions under which only one phase exist? (C1 & C2)</p> <ol style="list-style-type: none"> At an intersection of two lines. At the normal boiling point. At an intersection of three lines. In an area bounded by lines. 	<p>A B C D</p>



7	 <p>The phase diagram summarises the conditions under which equilibrium exist between states of matter. Choose the correct phase changes when the substance is heated at a constant pressure from point H to L. (C1 & C2)</p> <p>A. Gas → liquid → solid B. Liquid → solid → gas C. Solid → liquid → gas D. No phase change occurs.</p>	A B C D
8	<p>On a phase diagram an isotherm indicates which of the following? (C1 & C2)</p> <p>A. A region where the composition of the system is constant B. A region where the pressure is constant C. An area below which only the solid phase exists D. A region where the temperature is constant</p>	A B C D
9	<p>Which of the following statements is NOT true in relation to the triple point on a single component phase diagram? (C1 & C2)</p> <p>A. The point at which the solid, liquid and gaseous phases for a substance co-exist B. The triple point exists for a substance occurs at a specific temperature and pressure C. The triple point exists at a single temperature and is independent D. The system must be enclosed so that no vapour can escape</p>	A B C D



10	<p style="text-align: center;">The Phase Diagram For Water</p> <p>In the phase diagram of a one-component system above, which of the following statements is correct? (C1 & C2)</p> <p>A. The melting point of the solid increases with increase of pressure.</p> <p>B. The solid can be in equilibrium with the vapour only at a temperature on or below the triple point.</p> <p>C. The solid if heated at 1 atm will sublime.</p> <p>D. The three lines meet at the critical point.</p>	<p>A</p> <p>B</p> <p>C</p> <p>D</p>
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