

KERALA PUBLIC SCHOOLS

ACADEMIC YEAR 2020-21

HOME ASSIGNMENT (20-07-2020 to 25-07-2020)



CLASS	SUBJECT	CHAPTER	TOPIC	WEBLINK
IX	PHYSICS	<p>Ch - 5: Upthrust in fluids and Archimedes Principle</p> <p>Topics:</p> <p>Density, Relative density, Principle of floatation</p>	<p>Q1) How does the density of material of a body determine whether it will float or sink in water?</p> <p>Q2) It is easier to lift a heavy stone under water than in air. Explain.</p> <p>Q3) State the Archimedes' principle.</p> <p>Q4) Define the term density.</p> <p>Q5) Express the relationship between the C.G.S. and S.I. units of density.</p> <p>Q6) How are the (i) Mass, (ii) Volume and (iii) Density of a metallic piece affected, if at all, with an increase in temperature?</p> <p>Q7) What do you understand by the term relative density of a substance?</p> <p>Q8) State the principle of floatation.</p> <p>Q9) Explain why an iron nail floats on mercury, but it sinks in water.</p> <p>Q9) A block of wood is so loaded that it just floats in water at room temperature. What change will occur in the state of floatation, if (a) Some salt is added to water, (b) Water is heated?</p>	<p>https://youtu.be/JFBiwZ8Xusg</p>
		<p>Ch – 5 : Upthrust in fluids and Archimedes Principle</p> <p>Topics:</p> <p>Application of</p>	<p>A man first swims in sea water and then in river water. (i) Compare the weights of sea water and river water displaced by him.</p> <p>(ii) Where does he find it easier to swim and why?</p> <p>Give reasons..</p> <p>1) An iron nail sinks in the water while an iron ship floats on water. Explain the reason.</p>	<p>https://youtu.be/1Gs-vbd80OM</p>

	<p>principle of floatation</p> <p>Numericals 5A Page 105</p> <p>(2,4,5,7,10)</p>	<p>2) A piece of ice floating in a glass of water melts, but the level of water in the glass does not change.</p> <p>3) A loaded cargo ship sails from sea water to river water. List your observations.</p> <p>4) Icebergs floating in sea are dangerous for ships.</p> <p>5) An egg sinks in fresh water, but floats in a strong salt solution.</p> <p>6) Toy balloons filled with hydrogen rise to the ceiling, but if they are filled with carbon dioxide, then they sink to the floor.</p> <p>7) A balloon filled with hydrogen rises to a certain height and then stops rising further</p> <p>8) A ship submerges more as it sails from sea water to river water.</p> <p>9) A ship submerges more as it sails from sea water to river water.</p>	
<p>CHEMISTRY</p>	<p>Ch – 9 : Practical Work</p>	<p>Question 1</p> <p>(a) Give only one suitable chemical test to identify the following gases.</p> <ul style="list-style-type: none"> (i) Ammonia (ii) Sulphur dioxide (iii) Hydrogen Chloride (iv) Chlorine (v) Carbon Dioxide (vi) Oxygen (vii) Hydrogen <p>(b) Select a basic gas mentioned in Q.1 (a). How is the basic nature suspected?</p> <p>(c) Select acidic gases from the gases mentioned in Q.1 (a). How is the acidic nature suspected?</p> <p>(d) The two gases A and B are bleaching agents. A is greenish yellow and bleaches due to its oxidizing property while B is colourless gas that bleaches due to reduction. Identify A and B?</p> <p>(e) Which gas turn blue cobalt chloride paper light pink? Give one similarity in test between (i) Cl_2 and HCl (ii) SO_2 and CO_2.</p>	

		<p>Question 2 Name the gases which</p> <ol style="list-style-type: none">Extinguishes burning wooden splinter.Turns moist red litmus blue.Do not effect moist litmus.Affects the acidified $K_2Cr_2O_7$ paper and also turns lime water dirty milky. <p>Question 3 Name:</p> <ol style="list-style-type: none">Two carbonates which do not produce carbon dioxide on heating.A colourless gas which bleaches.Gases which has sour taste.Greenish yellow gas which also bleaches.Gas with rotten egg smell. <p>Question 4 Name the anion present in each of the following compounds:</p> <ol style="list-style-type: none">Compound A when warmed with concentrated sulphuric acid gives a gas which fumes in moist air and which gives dense white fumes with ammonia.When barium chloride solution is added to a solution of compound B, a white precipitate insoluble in dilute hydrochloric acid is formed.The action of heat on the insoluble compound C produces a gas which turns lime water turbid.Compound D when warmed with dilute sulphuric acid gives a gas which turns acidified dichromate solution green.	
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DIRECTOR ACADEMICS