

Class- 8

Subject- Science

Roll No. -----



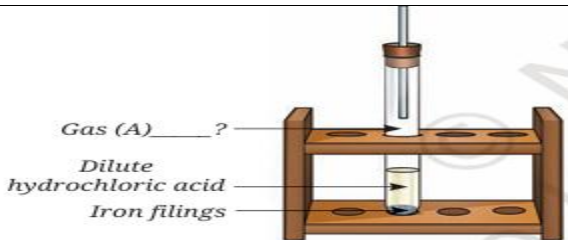
Max. Marks- 60

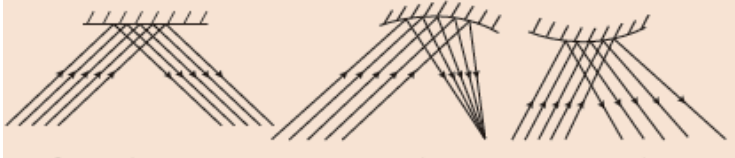
Duration: 2:30 Hrs.

**Instructions:-**

1. All the questions are compulsory.
2. Section **A** consists of twelve questions of one mark each.
3. Section **B** consists of six questions of two marks each.
4. Section **C** consists of six questions of three marks each.
5. Section **D** consists of two questions of four marks each.
6. Section **E** consists of two questions of five marks each.
7. Draw suitable diagram wherever required.

Q.No	Questions	Marks
<b>Section-A</b>		
1	Observe the pictures carefully and tell which force is acting here? (a) Magnetic force (b) Gravitational force (c) Frictional force (d) Electrostatic force	1
2	Which of the following is a contact force? (a) Magnetic force (b) Gravitational force (c) Frictional force (d) Electrostatic force	1
3	Three objects 1, 2, and 3 of the same size and shape but made of different materials are placed in the water. They dip to different depths as shown in Fig. If the weights of the three objects 1, 2 and 3 are $w_1$ , $w_2$ , and $w_3$ , respectively, then (i) $w_1 = w_2 = w_3$ (ii) $w_1 > w_2 > w_3$ (iii) $w_2 > w_3 > w_1$ (iv) $w_3 > w_1 > w_2$	1
4	Choose the correct option. The primary difference between solids and liquids is that the constituent particles are: (i) closely packed in solids, while they are stationary in liquids. (ii) far apart in solids and have fixed position in liquids. (iii) always moving in solids and have fixed position in liquids. (iv) closely packed in solids and move past each other in liquids.	1
6	You pour oil into a glass containing some water. The oil floats on top. What does this tell you? (i) Oil is denser than water      (ii) Water is denser than oil (iii) Oil and water have the same density      (iv) Oil dissolves in water	1
7	In a solution of sugar and water, sugar is called the: A. Solvent      B. Solute      C. Solution      D. Mixture	1

8	In a pond ecosystem, which organism is most likely to be at the first trophic level? A. Fish                      B. Frog                      C. Algae                      D. Snake	1	
9	Which of the following is <b>not</b> a satellite: (a) AzaadiSat      (b) InspireSat-1      (c) Jugnu.      (d) None of these	1	
10	When the light is incident along the normal on the mirror, which of the following statements is true: (i)      Angle of incidence is 90°      (ii) Angle of incidence is 0° (iii)      Angle of reflection is 90°      (iv) No reflection of light takes place in this case	1	
	<b>Directions for questions 11-12 :</b> For each question, choose the correct option: (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		
11	<b>Assertion (A):</b> Green plants are called producers in an ecosystem. <b>Reason (R):</b> They prepare their own food using sunlight, water and carbon dioxide.	1	
12	<b>Assertion (A):</b> Humans are the only cause of ecological imbalance. <b>Reason (R):</b> Natural disasters also affect ecosystems.	1	
<b>Section-B</b>			
13	Two balloons rubbed with a woolen cloth are brought near each other. What would happen and why?  <b>OR</b> When you drop a coin in a glass of water, it sinks, but when you place a bigger wooden block in water, it floats. Explain.	2	
14	<div><p>Fig. 6.23 (a)</p></div> <div>Fig. 6.23 a shows a boy lying horizontally, and Fig. 6.23 b shows the boy standing vertically on a loose sand bed. In which case does the boy sink more in sand? Give reasons.</div> <div><p>Fig. 6.23 (b)</p></div>	2	
15	When an incense stick is burnt in one corner of the room, initially, the fragrance is felt only around the incense stick. Shortly, you can smell the fragrance throughout the room. Why?	2	
16	(i)      Which gas is evolved in this activity? (ii)      How would test this gas ?	<div><p>Gas (A) _____ ? Dilute hydrochloric acid Iron filings</p></div>	2
17	Didtinguish between concave and convex lenses (any two) .	2	
18	State whether the following statements are True or False. (i)      We can only see that part of the Moon which reflects sunlight towards us. (ii)      The shadow of Earth blocks sunlight from reaching the Moon causing phases. (iii)      Calendars are based on various astronomical cycles which repeat in a predictable manner. (iv)      The Moon can only be seen at night.	2	

Section-C		
19	<p>Represent diagrammatically the changes in the arrangement of particles as ice melts and transforms into water vapour.</p> <p style="text-align: center;"><b>OR</b></p> <p>Draw a picture representing particles present in the following:            (i) Aluminium foil      (ii) Glycerin      (iii) Methane gas</p>	3
20	A stone sculpture weighs 225 g and has a volume of $90 \text{ cm}^3$ . Calculate its density and predict whether it will float or sink in water.	3
21	<p>Observe the image carefully and Name the mirrors by which such reflections of light are observed ?</p> 	3
22	<p>Fill appropriate <b>term in the blanks</b>:</p> <p>You may have observed that the bright portion of the Moon decreases from a full circle to a half circle in about a week. The bright portion continues to shrink for another week until it is no longer visible. This two-week period is called the -----period of the Moon. Different names are given to the Moon's visible shapes during this cycle. The day when the Moon appears as a full bright circle is called the -----day (or Purnima), and the day when it is not visible is called the----- day (or Amavasya).</p>	3
23	'Human-made ecosystems like agricultural fields are necessary, but they must be made sustainable.' Comment on the statement	3
24	What Allows Life to Be Sustained on Earth?	3
Section-D		
25	<p><b>Read the following passage and answer the given questions:</b></p> <p>Do you know how large the atmospheric pressure is? The force exerted by the atmospheric air column over an area <math>15 \text{ cm} \times 15 \text{ cm}</math> is nearly equal to the force of gravity on an object of mass 225 kg (2250 N). The reason we are not crushed under this weight is that the pressure inside our bodies is also equal to the atmospheric pressure. This balances the pressure exerted from outside. The pressure inside our body is caused by the movement of fluids and gases in tissues and organs of the body.</p> <p>You must have noticed that on some days, the wind blows strongly, whereas on other days, it is calm. Sometimes, wind becomes so strong that it causes damage to life and property.</p> <p>(a) What is SI unit of pressure?            (b) Define atmospheric pressure.            (c) How do winds form?</p> <p style="text-align: center;"><b>OR</b></p> <p>High-Speed Winds Result in Lowering of Air Pressure. Explain by an activity?</p>	1 1 2
26	<p><b>Read the following passage and answer the given questions:</b></p> <p>Countries around the world have made global agreements to protect the environment. The Montreal Protocol (1987) helped reduce harmful chemicals like Chlorofluorocarbons (CFCs), allowing the ozone layer to slowly recover. The Earth Summit (1992) led to international efforts on climate change and biodiversity. Later, the Kyoto Protocol (2005) and Paris Agreement (2015) committed countries to reduce greenhouse gas emissions. The Paris Agreement set a goal to limit global warming to below <math>1.5^\circ\text{C}</math>, but as of 2025, the world is not on track to meet that goal. Much more action is needed to avoid any more adverse effects of climate change.</p> <p>(i) Name two green house gases?</p>	1

	(ii) What is climate change? (iii) What will happen, when natural habitats are destroyed? Explain. <b>OR</b> In a village, the temperature has been increasing and rainfall has become unpredictable over the past few years. What could be causing this change?	1 2
<b>Section-E</b>		
27	Iron reacts with moist air to form iron oxide, and magnesium burns in oxygen to form magnesium oxide. Classify all the substances involved in the above reactions as elements, compounds or mixtures. Write their word equations?	5
28	You are tasked with designing a new settlement for humans on Mars. Name three things you would need to recreate from Earth to support human life there. Which of these do you think is the hardest to replicate, and why? <b>OR</b> Explain the following terms: (i) Hydrosphere      (ii) Geosphere      (iii) Biosphere. (iv) Geodiversity      (v) Ozone layer	5

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