

PM SHRI KENDRIYA VIDYALAYA
PERIODIC TEST - II (2025-26)
CLASS - VIII
SUBJECT - SCIENCE

MAX MARKS - 40

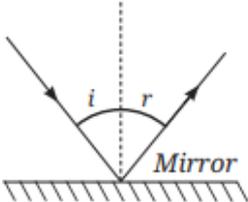
TIME - 90 MINUTES

General Instructions:

1. Attempt all question in sequence.
2. Marks are written against each type of question

SECTION- A

I – Multiple Choice Question carrying 1 mark each. (1 x 8 = 8)

Q1	<p>You pour oil into a glass containing some water. The oil floats on top. What does this tell you?</p> <p>(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</p>		
Q2.	<p>The primary difference between solids and liquids is that the constituent particles are:</p> <p>(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.</p>		
Q3	<p>Assertion: Air is a mixture. Reason: A mixture is formed when two or more substances are mixed, without undergoing any chemical change.</p> <p>(i) Both Assertion and Reason are true and Reason is the correct explanation for Assertion. (ii) Both Assertion and Reason are true, but Reason is not the correct explanation for Assertion. (iii) Assertion is true, but Reason is false. (iv) Assertion is false, but Reason is true.</p>		
Q4	<p>A light ray is incident on a mirror and gets reflected by it. The angle made by the incident ray with the normal to the mirror is 40°. What is the angle made by the reflected ray with the mirror?</p> <p>(i) 40° (ii) 50° (iii) 45° (iv) 60°</p>	 <p style="text-align: center;">Fig. 10.21</p>	



Q5.	In which of the following cases are all the examples correctly matched? (i) Elements — water, nitrogen, iron, air. (ii) Uniform mixtures— minerals, seawater, bronze, air. (iii) Pure substances— carbon dioxide, iron, oxygen, sugar. (iv) Non-uniform mixtures — air, sand, brass, muddy water.	
Q6	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	
Q7.	In lemonade, sugar is: (i) Solution (ii) Solvent (iii) Solute (iv) mixture	
Q8	The following question is based on Assertion/Reason. Assertion: Convex mirrors are preferred for observing the traffic behind us. Reason: Convex mirrors provide a significantly larger view area than plane mirrors. Choose the correct option: (i) Both Assertion and Reason are correct and Reason is the correct explanation for Assertion. (ii) Both Assertion and Reason are correct but Reason is not the correct explanation for Assertion. (iii) Assertion is correct but Reason is incorrect. (iv) Both Assertion and Reason are incorrect.	
	SECTION -B II. Short answer type questions carrying 2 mark each. (2 x 4 = 8)	
Q9.	Why do gases mix easily, while solids do not?	
Q10	How can gold be classified as both a mineral and a metal?	
Q11	A stone sculpture weighs 225 g and has a volume of 90 cm ³ . Calculate its density and predict whether it will float or sink in water.	



Q12	<p>Match the entries in Column I with those in Column II.</p> <table border="1"> <thead> <tr> <th>Column I</th> <th>Column II</th> </tr> </thead> <tbody> <tr> <td>(i) Concave mirror</td> <td>(a) Spherical mirror with a reflecting surface that curves inwards.</td> </tr> <tr> <td>(ii) Convex mirror</td> <td>(b) It forms an image which is always erect and diminished in size.</td> </tr> <tr> <td>(iii) Convex lens</td> <td>(c) Object placed behind it may appear inverted at some distance.</td> </tr> <tr> <td>(iv) Concave lens</td> <td>(d) Object placed behind it always appears diminished in size.</td> </tr> </tbody> </table>	Column I	Column II	(i) Concave mirror	(a) Spherical mirror with a reflecting surface that curves inwards.	(ii) Convex mirror	(b) It forms an image which is always erect and diminished in size.	(iii) Convex lens	(c) Object placed behind it may appear inverted at some distance.	(iv) Concave lens	(d) Object placed behind it always appears diminished in size.	
Column I	Column II											
(i) Concave mirror	(a) Spherical mirror with a reflecting surface that curves inwards.											
(ii) Convex mirror	(b) It forms an image which is always erect and diminished in size.											
(iii) Convex lens	(c) Object placed behind it may appear inverted at some distance.											
(iv) Concave lens	(d) Object placed behind it always appears diminished in size.											
	<p>SECTION -C</p> <p>II Short answer type questions carrying 3 mark each. (3 x 4 = 12)</p>											
Q13	Why does the water in the ocean taste salty, even though the salt is not visible? Explain.											
Q14.	Write the names of any two compounds made only from non-metals, and also mention two uses of each of them.											
Q15.	<p>An object has a mass of 400 g and a volume of 40 cm³. What is its density?</p> <p style="text-align: center;">OR</p> <p>Object A has a mass of 200 g and a volume of 40 cm³. Object B has a mass of 240 g and a volume of 60 cm³. Which object is denser?</p>											
Q16	Grains of rice and rice flour take the shape of the container when placed in different jars. Are they solids or liquids? Explain.											
	<p>SECTION -D</p> <p>IV. Long answer type questions carrying 4 mark each. (3x4=12)</p>											
Q17.	<p>a. State two laws of reflection.</p> <p>b. What are the uses of lenses?</p>											
Q18.	<p>a. A block of iron has a mass of 600 g and a density of 7.9 g/cm³. What is its volume?</p> <p>b. Why does the unpeeled orange float, while the peeled one sinks? Explain.</p> <p style="text-align: center;">OR</p> <p>Classify the following as elements, compounds, or mixtures in Table.</p>											

Carbon dioxide, sand, seawater, magnesium oxide, muddy water, aluminium, gold, oxygen, glucose, air, water, fruit juice, nitrogen.

Element	Compounds	Mixtures



Q19

CRITICAL & CREATIVE THINKING

Read the following lines answer the questions-

Ice floats on water because it is lighter than liquid water. Water has a special property that its density is highest at 4 °C. It means water is heaviest at 4 °C. As the temperature drops, and water turns into ice at 0 °C, it undergoes a change in structure—the particles arrange themselves in a way that takes up more space. This process is called expansion. Because the same amount of water now occupies a larger volume, its density decreases. As a result, ice becomes lighter than liquid water and floats on its surface.

This is important for animals living in lakes and oceans because ice floats, it forms a layer on top, keeping the water underneath warm enough for fish and other creatures to survive, even in extremely cold weather.

- (i) Why does ice float on water?
- (ii) What happens to water particles when water turns into ice at 0 °C?
- (iii) How does the change in volume affect the density of ice?
- (iv) Why is floating ice important for aquatic animals during winter??



OR

The Dhokra art is an old craft from Bihar and Odisha that uses different metals to create beautiful figures inspired by nature. The process begins with shaping a design in beeswax. This wax model is covered with clay to make a mould. After the clay hardens, the wax is melted out, leaving a hollow space. This space is then filled with molten brass or bronze, which makes Dhokra art strong and gives it a shiny golden colour. The figures

often show animals, people, and nature, reflecting tribal creativity and tradition.

(i) Why do you think beeswax is used to make the initial model?

(ii) What could be the reason for covering the wax model with clay?

(iii) How does melting the wax out help in forming the final metal figure?

(iv) Why do you think Dhokra artists often choose themes from nature and daily tribal life?

