

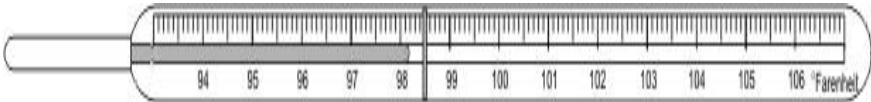
S.N	Folder Number & Question Code	Topic	Question With Answers Options	Image (If Any)	Correct Answer (Option – A, B, C, D)
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1.	1_3 SCIENCE 6646	HEAT (CHAPTER -4)	<p>A Maximum-Minimum thermometer has two stems which record the highest and lowest temperatures during a period of time. A small metallic piece in each stem indicates the temperature.</p> <p>What are the MAXIMUM, MINIMUM AND CURRENT TEMPERATURES shown in this thermometer (Fig.2)</p>	<p>Fig. 1</p> <p>Fig.2</p>	B
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Answer Options

Option A	Option B	Option C	Option D
55 ⁰ C, 35 ⁰ C, 45 ⁰ C	45 ⁰ C, 25 ⁰ C, 35 ⁰ C	55 ⁰ C, 25 ⁰ C, 35 ⁰ C	45 ⁰ C, 25 ⁰ C, 30 ⁰ C

2.	1_3 SCIENCE 7357	HEAT	Mercury and Alcohol are two common liquids used in thermometers. The boiling point of MERCURY is 357 °C, while its freezing point is -39 °C. For ALCOHOL, the boiling point is 78 °C and the freezing point is -80°C. It is required in a laboratory to make measurements which are in the region of -60°C. Which type of thermometer would be more suitable?		D	
		Answer Options				
		Option A	Option B	Option C	Option D	
		A MERCURY thermometer since the freezing point of mercury is higher than -60°C.	A MERCURY thermometer since the boiling point of mercury is as high as 357°C.	An ALCOHOL thermometer since the boiling point of alcohol is lower at 78°C.	An ALCOHOL thermometer since the freezing point of alcohol is lower than -60°C	

3.	1_3 SCIENCE 7356	HEAT	Which of these readings CANNOT be taken with the thermometer shown?		A	
		Answer Options				
		Option A	Option B	Option C	Option D	
		92°F	98.4°F	100.1°F	106°F	

4.	1_3 SCIENCE 7355	HEAT	<p>The question is based on this experiment: Two identical vessels are taken and painted white and black respectively. Then the same quantity of water is poured into each one of them. Both the vessels are left in the sun, and the temperature is noted regularly.</p> <p>The water temperature in the vessel painted white is recorded every five minutes as shown in the table below. What is the temperature in the vessel likely to be 30 minutes after it was left in the sun? (Select the closest temperature)</p>	<table border="1"> <thead> <tr> <th colspan="2">Water Temperature in WHITE Vessel</th> </tr> </thead> <tbody> <tr> <td>After 5 minutes</td> <td>17°C</td> </tr> <tr> <td>After 10 minutes</td> <td>20°C</td> </tr> <tr> <td>After 15 minutes</td> <td>23°C</td> </tr> <tr> <td>After 20 minutes</td> <td>25°C</td> </tr> </tbody> </table>		Water Temperature in WHITE Vessel		After 5 minutes	17°C	After 10 minutes	20°C	After 15 minutes	23°C	After 20 minutes	25°C	C
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20 °C	25 °C	29 °C	35 °C													

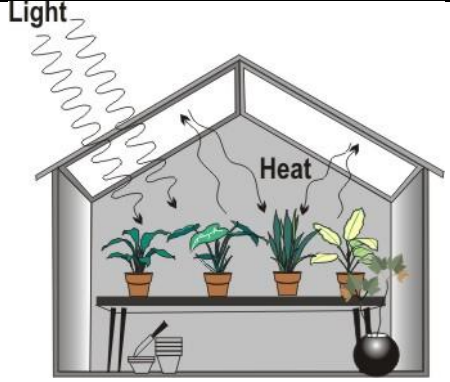
5.	1_3 SCIENCE 7354	HEAT	<p>The question is based on this experiment: Two identical vessels are taken and painted white and black respectively. Then the same quantity of water is poured into each one of them. Both the vessels are left in the sun, and the temperature is noted regularly.</p> <p>The water in which vessel is likely to get hotter and why?</p>		B			
				Answer Options				
				Option A		Option B	Option C	Option D
The white vessel as white reflects more heat than black.	The black vessel as black absorbs more heat than white	The white vessel as white absorbs more heat than black.	It will be same in both vessel as the material is the same.					

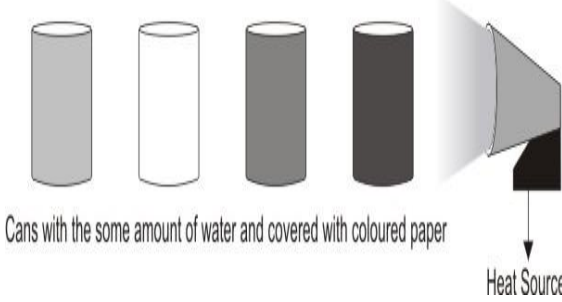
6.	1_3 SCIENCE 7349	HEAT	The specific heat capacity of a substance is the heat required to raise the temperature of 1kg of the substance by 1°C .The specific heat capacity of water is 4187 joules per degree celsius per kilogram. A bucket contains 4kg of water. What is the specific heat capacity of water in the bucket?		A
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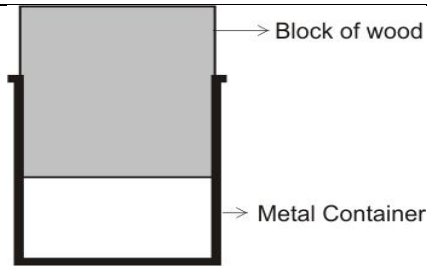
Answer Options			
Option A	Option B	Option C	Option D
4187 J/°C/kg	16748 J/°C/kg	1047 J/°C/kg	8374 J/°C/kg

7.	1_3 SCIENCE 7343	HEAT	Vessel P contains 150 grams of candle wax, while vessel Q contains 3 kilograms of the same material. Both are heated and start melting. Which of the following will be true about the temperature at which the wax just STARTS melting, and the temperature at which the wax melts COMPLETELY	<table border="1"> <thead> <tr> <th></th> <th>Temperature at which wax STARTS melting</th> <th>Temperature at which wax just melts COMPLETELY</th> </tr> </thead> <tbody> <tr> <td>A.</td> <td>Same for both</td> <td>Lower for P</td> </tr> <tr> <td>B.</td> <td>Lower for P</td> <td>Lower for P</td> </tr> <tr> <td>C.</td> <td>Same for both</td> <td>Same for both</td> </tr> <tr> <td>D.</td> <td>Lower for P</td> <td>Same for both</td> </tr> </tbody> </table>		Temperature at which wax STARTS melting	Temperature at which wax just melts COMPLETELY	A.	Same for both	Lower for P	B.	Lower for P	Lower for P	C.	Same for both	Same for both	D.	Lower for P	Same for both	C
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B.	Lower for P	Lower for P																		
C.	Same for both	Same for both																		
D.	Lower for P	Same for both																		

Answer Options			
Option A	Option B	Option C	Option D
A	B	C	D

8.	1_3 SCIENCE 7329	HEAT	3 ice cubes of similar shape and size were kept on three different surfaces - glass, copper and concrete. The first to completely melt was the cube on the copper surface, while the one on the glass surface melted last. Arrange Copper, Glass and Concrete from WORST heat conductor to BEST.		B												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="4" style="padding: 5px;">Answer Options</th> </tr> <tr> <th style="width: 25%; padding: 5px;">Option A</th> <th style="width: 25%; padding: 5px;">Option B</th> <th style="width: 25%; padding: 5px;">Option C</th> <th style="width: 25%; padding: 5px;">Option D</th> </tr> <tr> <td style="padding: 5px;">copper, glass, concrete</td> <td style="padding: 5px;">glass, concrete, copper</td> <td style="padding: 5px;">copper, concrete, glass</td> <td style="padding: 5px;">concrete, copper, glass</td> </tr> </table>						Answer Options				Option A	Option B	Option C	Option D	copper, glass, concrete	glass, concrete, copper	copper, concrete, glass	concrete, copper, glass
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9.	3_17 Science 1505	Heat	The structure shown here is called a greenhouse. Greenhouses have glass panels that let in light but keep heat from escaping. In which regions would greenhouses of this type be used to grow plants?	 <p>The diagram shows a cross-section of a greenhouse. Wavy arrows labeled 'Light' enter from the top left through the glass roof. Inside, several potted plants are on a table. Arrows labeled 'Heat' point from the plants and the floor towards the glass walls and roof, indicating that the heat is being reflected back into the space.</p>	A												
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10.	3_17 Science 1497	Heat	In a thermal power station coal is used to produce energy. Which of these shows the correct sequence of transformation of energy in a thermal power station?		D	
		Answer Options				
		Option A	Option B	Option C	Option D	
		Mechanical -> Heat -> Electrical -> Chemical	Chemical -> Electrical -> Heat -> Mechanical	Heat -> Chemical -> Mechanical -> Electrical	Chemical -> Heat -> Mechanical -> Electrical	
11	3_17 Science 1520	Heat	Kamesh conducts the following activity to check if colour has any effect on heat absorption. He takes four identical cans with the same amount of water but covered with different coloured papers and places them near a heat source as shown in the figure. The temperature of the water in the cans is measured at regular intervals. The MISTAKE in Kamesh's experiment relates to:	 <p>Cans with the same amount of water and covered with coloured paper</p> <p>Heat Source</p>		B
		Answer Options				
		Option A	Option B	Option C	Option D	
		the amount of water being the same in each can	the positioning of the cans with respect to the heat source	the use of paper of different colours for covering the cans	taking temperature readings at the same time in all the cans	

12.	3_17 Science 1498	Heat	Which of these will definitely have a freezing point of 0 degree C and a boiling point of 100degree C?		C	
		Answer Options				
		Option A	Option B	Option C	Option D	
		Rain water	River Water	Distilled water	All the aboves	
13.	3_15 Science 3547	Heat	The temperature inside a refrigerator (not in the freezer compartment) is likely to be around_____.		C	
		Answer Options				
		Option A	Option B	Option C	Option D	
		-4 °Celsius	0° Fahrenheit	5°Celsius	100° Fahrenheit	
14.	3_15 Science 3552	Heat	The diagram below shows a block of wood stuck in a metal container. Which of these is the best way to remove the block of wood undamaged?		D	
		Answer Options				
		Option A	Option B	Option C	Option D	
		Burn the wood.	Drill holes in the metal container	Submerge the container in water.	Heat the metal container.	

15.	3_15 Science 3576	Heat	In which of these following cases is energy released?		B		
Answer Options							
Option A		Option B		Option C		Option D	
when water is boiled		when wood is burned		when an object is dropped		when a plant makes food	