

SISHYA SCHOOL, HOSUR.**LATERAL ENTRY EXAMINATION-2022-23****SUBJECT: SCIENCE****SET-1****CLASS: VIII to IX**

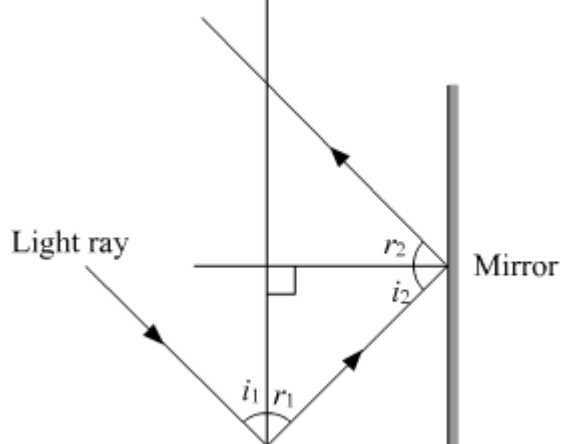
Mark: 25

TIME : 45 MIN

Answer key

S.No	Question & answer	M	S	T
1.	<p>Sharon took a beaker and fill half of it with water. Put a handful of wheat seeds and stirred well. Waited for some time. What did she observed.</p> <p>Answer: She observe that most of the seeds sink while some float on water. Damaged seeds become hollow and lighter so they float. In this way, damaged seeds from the healthier ones.</p>	1	U	1
2.	<p>Take a few drops of water from a pond. Spread on a glass slide and observe through a microscope.</p> <p>Answer: It is observed that some tiny organisms are moving around.</p>	2	A P P	1
3	<p>Take two pots and fill each pot half with soil. Mark them A and B. Put plant waste in pot A and things like polythene bags, empty glass bottles and broken plastic toys in pot B. Put the pots aside. What can be noticed after 3-4 weeks.</p> <p>Answer: We can notice that plant waste in pot A has been decomposed, whereas the polythene bags, empty glass bottles and broken plastic toys in pot B did not undergo such changes.</p>	2	U	2
4.	<p>List the factors disturbing the biodiversity of your area. Some of these factors and human activities may disturb the biodiversity unknowingly. List these human activities. How can these be checked? Discuss in your class and write a brief report in your notebook.</p> <p>Answer: Cutting of trees, rising air, water and land pollution, excessive construction, using more resources or their products affect the biodiversity harshly.</p>	2	U	2
5.	<p>The different stages of the life cycle of mosquito and silkmoth are given below. Arrange them in proper sequence.</p> <p>1. Mosquito – Pupa ---> Eggs ----> Larva ----> Adult. 2. Silk moth – Larvae ----> Zygote ---> Cocoon ---> Adult ----></p>	2	A	2

	<p>Caterpillar.</p> <p>Answer:</p> <ol style="list-style-type: none"> 1. Eggs → Larva → Pupa → Adult 2. Zygote → Larvae → Caterpillar → Cocoon → Adult. 			
6.	<p>How much force will be required to exert a pressure of 20,000 Pa on an area of 1cm².</p> <p>Answer:</p> <p>Pressure = 20,000 Pa</p> <p>Area = 1cm²</p> <p>= 1/(100x100) m²</p> <p>= 1/10000 = 0.0001 m²</p> <p>Pressure = Force/Area</p> <p>Force = Pressure x area</p> <p>= 20000 x 0.0001</p> <p>= 2 N</p>	2	A P P	3
7.	<p>An explosion occurs on moon. Will it be</p> <p>(a) seen</p> <p>(b) heard on earth instantly or after some time?</p> <p>Justify your answers</p> <p>Answer:</p> <p>(a) It will be seen instantly on earth, as light travels at a great speed of 300000000 m/s.</p> <p>(b) It will not be heard on earth, as sound needs a medium to travel and there is no medium between the moon and earth.</p>	2	U	3
8.	<p>What effect do the two kinds of charges have on each other?</p> <p>Answer: The two kinds of charges are basically positive charges and negative charges. They always attract each other.</p>	1	K	2
9.	<p>Two mirrors are kept perpendicular to each other. A ray strikes one mirror at an angle of 45° to the normal. Find the direction of the ray after reflection by the second mirror, by drawing a ray diagram.</p> <p>Answer:</p> <p>Here, $i_1 = r_1 = i_2 = r_2 = 45^\circ$</p>	2	A P P	3

				
10.	<p>Why do you think rolling friction is less than sliding friction? Answer: Rolling friction is less than sliding friction because of the minimal surface of contact between two surfaces. For a rolling body, the contact surface area is less and goes on changing. In case of rolling friction, we can assume that a point of a body is in contact with a surface; while in case of sliding friction, the whole surface area of the body is in contact with the surface.</p>	2	U	2
11.	<p>Mala's aunt caught with a fire in her saree during cooking using wood as a fuel in her village. Suddenly her uncle covered her with heavy blanket. What might be the reason that he covered her with blanket? Explain your answer.(2m)</p> <p>Answer: When the clothes of a person catch fire the person is covered with a blanket to extinguish fire because when the burning clothes of a person are covered with a blanket, the supply of air to the burning clothes is cut off and hence the burning stops.</p>	2	A P P	3
12.	<p>In an experiment 4.5 kg of a fuel was completely burnt. The heat produced was measured to be 180,000 kJ. Calculate the calorific value of the fuel(2m)</p> <p>Answer: The amount of heat energy produced on complete combustion of 1 kg of a fuel is called its calorific value.</p> <p>Heat produced from 4.5 kg of a fuel = 180,000 kJ</p> <p style="text-align: center;">Heat produced from 1 kg of a fuel = $180,000 \text{ kJ} \div 4.5 \text{ kg}$ = 40000 kJ/kg</p>	2	U	3
13.	<p>There is a rapid increase in our energy consumption. Comment on this statement with suitable examples(2m)</p> <p>World's population is increasing, which means energy requirements are also increasing. People need more energy to cook food, to heat their homes etc., which means more energy is being used.</p> <p>With the development of countries, energy consumption also increases because people use more devices which need energy, both for functioning and manufacturing.</p>	2	K	3
14.	What happens	2	A P	3

	<p>A. When magnesium added to dil.HCl(1m) B. When copper is added to iron sulphate solution(1m)</p> <p>A. When magnesium ribbon reacts with hydrochloric acid, magnesium chloride will be formed and hydrogen gas is liberated. $\text{Mg} + \text{dil.HCl} \rightarrow \text{MgCl}_2 + \text{H}_2$</p> <p>B. When a piece of copper is placed in iron sulphate solution then no change will be observed. This is because copper is less reactive than iron, therefore, unable to displace it from its solution.</p>		P	
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Prepared by: P. Glory Stella, Janaki S, Valarmathi

Checked and cleared by: G. Vanmathi

Grammar checked by: Y. Lata

Endorsed by BC: L Ananthalakshmi

Endorsed by Principal: