

**DELHI PUBLIC SCHOOL. JAMMU****CT:01(2024-25)****ANSWER KEY****CLASS: X****SUBJECT: SCIENCE**

<b>Q.NO</b>	<b>ANSWERS</b>	<b>RUBRICS</b>
1	(c) 0°	1
2	(d) $3 \times 10^8 \text{ms}^{-1}$	1
3	(c) $2\text{Al} + 3\text{Cl}_2 \rightarrow 2\text{AlCl}_3$	1
4	(c) 2:1	1
5	(c) Starch	1
6	(b) Parasitic Nutrition	1
7	(d) Anal Sphincter	1
8	(A)	1
9	(A)	1
10	(B)	1
11	(1) Light travels in straight line (2) Velocity of light is $3 \times 10^8 \text{ms}^{-1}$	1 1
12	(i) $\text{CH}_4 (\text{g}) + 2\text{O}_2 (\text{g}) \rightarrow \text{CO}_2 (\text{g}) + 2\text{H}_2\text{O}(\text{l}) + \text{heat energy}$ (ii) $\text{C}_6\text{H}_{12}\text{O}_6 (\text{s}) + 6\text{O}_2 (\text{g}) \rightarrow 6\text{CO}_2 (\text{aq}) + 12\text{H}_2\text{O} (\text{l}) + \text{energy}$ OR $\text{FeSO}_4 (\text{s}) + \text{Heat} \rightarrow \text{Fe}_2\text{O}_3 (\text{s}) + \text{SO}_2 (\text{g}) + \text{SO}_3 (\text{g})$ It is a thermal decomposition reaction	1 1
13	Maximum absorption occurs in small intestine due to following reasons: (a) digestion is completed in small intestine (b) inner lining of small intestine is provided with villi which increases the surface area to ensure better absorption (c) wall of intestine is richly supplied with blood vessels (which take the absorbed food to each and every cell of the body).	1+1

14	<p>Regular reflection: It is the reflection in which reflected rays are parallel.          Reflected rays have equal separation          Surfaces are smooth</p> <p>Irregular reflection: It is the reflection in which reflected rays are not parallel to each other.          Reflected rays do not have equal separation</p>	<p>1</p> <p>1</p> <p>1</p>
	Surfaces are rough	
15	<p>(i) A is calcium oxide, CaO which is used in the manufacturing of cement.</p> <p>B is calcium hydroxide Ca(OH)<sub>2</sub>.</p> <p>(ii) The given reaction is a combination reaction.</p> <p>Example : <math>\text{NH}_3(\text{g}) + \text{HCl}(\text{g}) \rightarrow \text{NH}_4\text{Cl}(\text{s})</math>  <math>2\text{NO}(\text{g}) + \text{O}_2(\text{g}) \rightarrow 2\text{NO}_2(\text{g})</math></p>	<p>1</p> <p>1</p> <p>1</p>
16	<p>Amoeba takes its nutrition through a process called phagocytosis where the entire organism swallows the food it plans on eating up. The mode through which an amoeba engulfs nutrition is known as holozoic nutrition. It leads to the process of ingestion, digestion and egestion of food material. ( 1 – process , 2 – Steps)</p> <p style="text-align: center;">OR</p> <p>a) <i>During the breathing cycle, when air is taken in and let out, the lungs always contain a residual volume of air to ensure that there is sufficient time for oxygen to be absorbed and for the carbon dioxide to be released.</i></p> <p>b) <i>The respiratory system is lined with a mucous membrane that secretes mucus. The mucus traps smaller particles like pollen or smoke. Hairlike structures called cilia line the mucous membrane and move the particles trapped in the mucus out of the nose.</i></p> <p>c) <i>A normal trachea (windpipe) has many rings made of cartilage (a strong and flexible tissue). These rings are C-shaped and support the trachea but also allow it to move and flex when you breathes.</i></p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p>