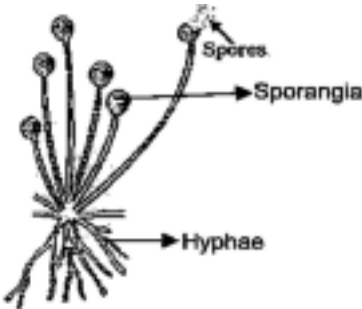


CBSE Class 10 Science Sample Paper 2026 (By Experts) **Solutions/ Marking Scheme**

	Section – A	Marks	Total marks
1.	B. L (Mouth cavity) M (Stomach) N (Small intestine) Amylase Pepsin trypsin		1
2.	C. This eliminates the need of producing plants using seeds.		1
3.	D. 100%; 75%		1
4.	A. P		1
5.	C. 1%		1
6.	C. a-iii, b-iv, c-i, d-ii		1
7.	B. The plant uses electrochemical signals to transfer information from one cell to another.		1
8.	A. Both A and R are true, and R is the correct explanation of A.		1
9.	C. A is true, but R is false.		1
10.	 (a) Reproductive part – Sporangia (b) Non-reproductive part – Hypha/Hyphae.	1 $\frac{1}{2}$ $\frac{1}{2}$	2
11.	A – Plumule, B- Cotyledon, C – Radicle B – Cotyledon stores food for the developing embryo.	$\frac{1}{2} \times 3$ $\frac{1}{2}$	2

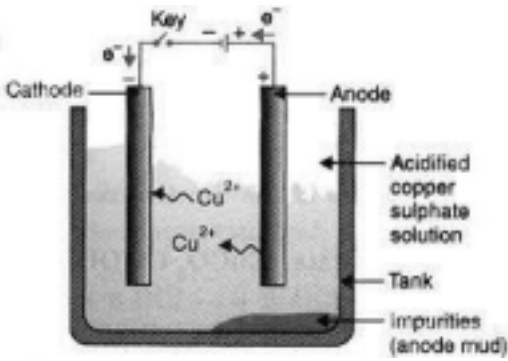
12.	i) Dendron / Dendrite – Information is acquired ii) Axon – Through which information travels as an electrical impulse.	$\frac{1}{2}$, $\frac{1}{2}$ $\frac{1}{2}$, $\frac{1}{2}$	2
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13.	i. Increase in female foeticide / Declining child sex ratio (Anyone) Benefit: Maintaining male-female sex ratio for a healthy society ii. Bacterial infections caused due to unsafe sex - Gonorrhoea, Syphilis	1 1 $\frac{1}{2}$ $\frac{1}{2}$	3
14.	(i) A vegetarian food habit involves only two step food chain Producer → Primary consumer (Herbivore) An average of 10% of the amount of organic matter reaches to the next level of consumer, hence it gets more energy. (ii) Because garden contain both biotic (grasses, trees, flowering plants, animals like frogs, insects and birds) components and abiotic components (like temperature, rainfall, wind, soil and minerals) which interact with each other for their growth, reproduction and other activities.	2 $\frac{1}{2}$ $\frac{1}{2}$	3
15.	A. (i) Renal artery (ii) Glomerulus B. Urinary bladder stores urine. This is a muscular organ under nervous control. Attempt either subpart C or D. C. Two major steps involved in the formation of urine are: Filtration: In filtration, nitrogenous wastes like urea and uric acid are filtered by the glomerulus of the kidney. Reabsorption: Various useful substances like glucose, salts amino acids and major amounts of water are reabsorbed by the renal tubules from the initial filtrate. OR D. In the tubular part of the nephron, selective reabsorption takes place. The amount of water re-absorbed depends on the following two factors: • How much excess water there is in the body. • How much of dissolved waste there is to be excreted.	$\frac{1}{2} + \frac{1}{2}$ 1 1+1 1 $\frac{1}{2} + \frac{1}{2}$	4

16.	<u>Attempt either A or B.</u> A (i) In F1 generation, all plants were tall / No short plants were observed • No medium height plants / No halfway characteristics were observed / Only dominant parental traits were seen and not the mixture of the two. (ii) Dominant trait: Single copy of dominant trait is enough to get it expressed/always expressed Recessive trait: Only expressed when present in pair. (iii) <u>Self-pollination / Self-fertilisation / Selfing of F1 plants</u> Ratio - Round Yellow : Wrinkled Green 9:1 • Traits are inherited independently.	$\frac{1}{2}$ $\frac{1}{2}$ 1 $\frac{1}{2}$ $\frac{1}{2}$ 1 1	5
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(iv) because of inheritance through sexual reproduction, where genes from both parents are transferred to the child. (any correct expression) OR i. not rolling is controlled by the recessive allele. All possible genotypes of the F1 generation of the cross are: RR Rr, rr (Homozygous dominant, heterozygous dominant, homozygous recessive) ii. 50% of the offspring will show the same genotype as the parents <table border="1"><tr><td></td><td>R</td><td>r</td></tr><tr><td>R</td><td>RR</td><td>Rr</td></tr><tr><td>r</td><td>Rr</td><td>rr</td></tr></table> iii. Ratio of tongue roller to non-tongue roller offspring = 1:1 <table border="1"><tr><td></td><td>R</td><td>r</td></tr><tr><td>r</td><td>Rr</td><td>rr</td></tr><tr><td>r</td><td>Rr</td><td>rr</td></tr></table>		R	r	R	RR	Rr	r	Rr	rr		R	r	r	Rr	rr	r	Rr	rr	1 1 1 1 $\frac{1}{2}$ $\frac{1}{2}$	
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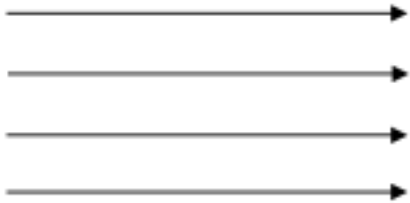
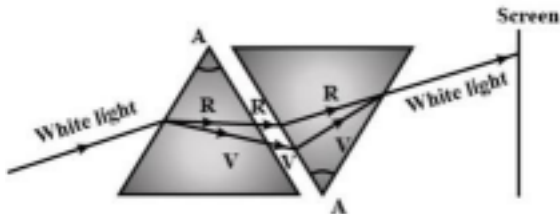
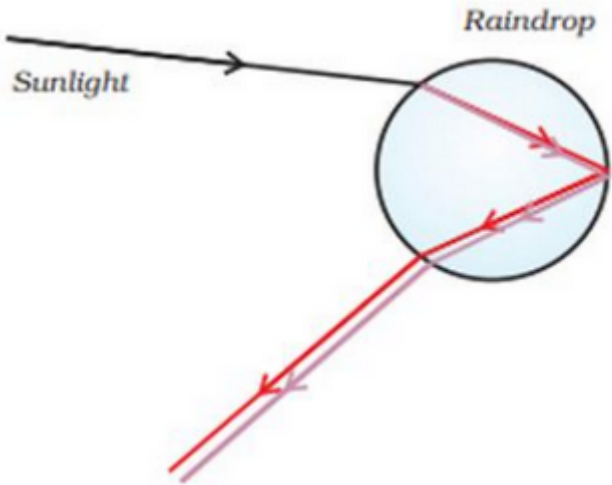
	Section – B		
17.	A. Hydrogen gas and iron chloride are produced.		1
18.	A. Liquid D can be used to neutralize the acidity of Liquid A		1
19.	A.		1
20.	A. Both A and R are true, and R is the correct explanation of A.		1
21.	B. Only (iv)		1

22.	C. 1/2		1
23.	D. (ii) and (iv)		1
24.	(b) Al and Al ₂ O ₃		1
25.	i. The above reaction is known as a thermite reaction as the reaction is highly exothermic reaction. / The metal (Mn/Fe) obtained will be in molten/ liquid state. ii. Aluminium is preferably used in thermite reactions as it is placed above Fe and Mn in the reactivity series of metals. / Al is more reactive than Fe/ Mn	1 1	2
26.	<u>Attempt either A or B.</u> A. a) 'X' - Copper/ Cu and 'Y' - CuO b) Diagram -1 label 1  OR	1 2	3

	B. Metal X is Zinc The sulphide ore is first heated strongly in supply of oxygen and changed into its oxide. This process is called roasting. Zinc oxide is then reduced to zinc metal by heating it with carbon. This process is called reduction. /Or consider reaction below $2\text{ZnS} + 3\text{O}_2 \xrightarrow{\text{Roasting}} 2\text{ZnO} + 2\text{SO}_2$ $\text{ZnO} + \text{C} \xrightarrow[\text{(Smelting)}]{\text{Reduction}} \text{Zn} + \text{CO}$ Coke	1 1 1	
27.	(a) In the first test tube A. (b) Reaction (c) Displacement reaction OR (a) Electron dot structure (b) Formation of KCl. (c) Ions name – K and Cl	1 1 1	3

28.	A. Baking soda is sodium hydrogen carbonate. On heating, it is converted into sodium carbonate which is bitter to taste $2\text{NaHCO}_3 \xrightarrow{\text{Heat}} \text{Na}_2\text{CO}_3 + \text{H}_2\text{O} + \text{CO}_2$ B. addition of an appropriate amount of tartaric acid/ any edible acid to it. The role of tartaric acid is to neutralise sodium carbonate and cake will not taste bitter <u>Attempt either subpart C or D</u> C. Plaster of Paris - Calcium sulphate hemihydrate ($\text{CaSO}_4 \cdot \frac{1}{2}\text{H}_2\text{O}$). $\text{CaSO}_4 \cdot \frac{1}{2}\text{H}_2\text{O} + \frac{3}{2}\text{H}_2\text{O} \rightarrow \text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ OR D. Chlorine (G). Bleaching powder (C) $\text{Ca(OH)}_2 + \text{Cl}_2 \rightarrow \text{CaOCl}_2 + \text{H}_2\text{O}$ Dry slaked lime Chlorine Bleaching powder	1 $\frac{1}{2}$ $\frac{1}{2}$ 1 1 $\frac{1}{2}$ $\frac{1}{2}$ 1	4
29.	<u>Attempt either option A or B.</u> A.(i) reducing agent: H_2 (ii). Decomposition reaction/Thermal decomposition $2\text{Pb(NO}_3)_2 \xrightarrow{\text{Heat}} 2\text{PbO} + 4\text{NO}_2 + \text{O}_2$ (iii) • Yellow precipitate of lead iodide is formed. • Double displacement reaction / Precipitation reaction $\text{Pb(NO}_3)_2 + 2\text{KI} \longrightarrow \text{PbI}_2 + 2\text{KNO}_3$ OR B. (i) Bubbles of gas/ Evolution of gas	1 1+1 $\frac{1}{2}$ $\frac{1}{2}$ 1 1	5

Change in colour (Zn - silvery grey to black)	1	
Change in temperature (any two)		
(ii) Colour change/green colour Ferrous sulphate crystals decompose to brown colour ferric oxide (Fe ₂ O ₃)	½	
Gas evolution: /A smell of burning sulphur is observed due to the release of sulphur dioxide (SO ₂) and sulphur trioxide (SO ₃) gases /a gas with choking smell has evolved	½	
(iii) Silver chloride on exposure to sunlight may decompose to silver	1	
2AgCl → 2Ag + Cl ₂ .	1	
Therefore, it is stored in dark coloured bottles.		
(iv) To prevent oil and fats of chips from being oxidised or prevent rancidity		

	ii. The earth wire provides a safe path for leaking current to flow into the ground, preventing electric shocks and protecting users from danger. iii. Uniform magnetic field is represented by equidistant parallel straight lines 	1 1	
37.	(a) Ravi is suffering from myopia (also called near-sightedness). (b) Two possible causes of myopia are: 1. The eyeball becomes too long. 2. The eye lens becomes too curved, increasing its converging power. (c) Myopia is corrected using a concave lens (diverging lens).	$\frac{1}{2}$ $\frac{1}{2}$ 1 1	3
38.	A. Dispersion of light B. Different colours of light bend through different angles with respect to the incident ray as they pass through a prism. C. Two identical prisms are placed in an inverted position with respect to each other as shown. When spectrum produced by prism A is passed through the prism B, a beam of white light emerges from the other side of the prism B.  (award full marks even if only labelled ray diagram is given) OR D.  ($\frac{1}{2}$ marks to be deducted if arrows are not marked)	1 1 2 2	4

39.	<u>Attempt either option A or B.</u> (a) Since two 8Ω resistors are in parallel, their effective resistance (R_p) is given by $R_p=4\Omega$ (b) Total resistance in the circuit, $R=4\Omega+R_p=4\Omega+4\Omega=8\Omega$ Current through the electric circuit, $I=V/R=8V/8\Omega=1A$ Since 4Ω resistor and R_p are in series, current through 4Ω resistors $=1A$ (c) Potential difference across 4Ω resistors, $V=IR=1\times 4=4V$ (d) Power dissipated in 4Ω resistors, $P=I^2R=(1A)^2(4\Omega)=4W$ (e) There is no difference in the readings of ammeters A_1 and A_2, as the same current flows through all elements in a series circuit. OR (i) length; cross sectional area of the material; temperature. (ii) Material. X – ammeter and current. Y – voltmeter and voltage/potential difference. (iii) $1/R_p = 1/6 + 1/6$; $R_p=3 (\Omega)$; So $R_s = 3 + 2 = 5 (\Omega)$ (iv) $V= IR$ So $I = 6/5$ Answer $1.2A$	1 1 1 1 1 1 $\frac{1}{2} +$ $\frac{1}{2}$ $\frac{1}{2} +$ $\frac{1}{2}$ $\frac{1}{2} +$ $\frac{1}{2}$ 1	5
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