



# Indian School Al Wadi Al Kabir

## Final Examination (2025-2026)

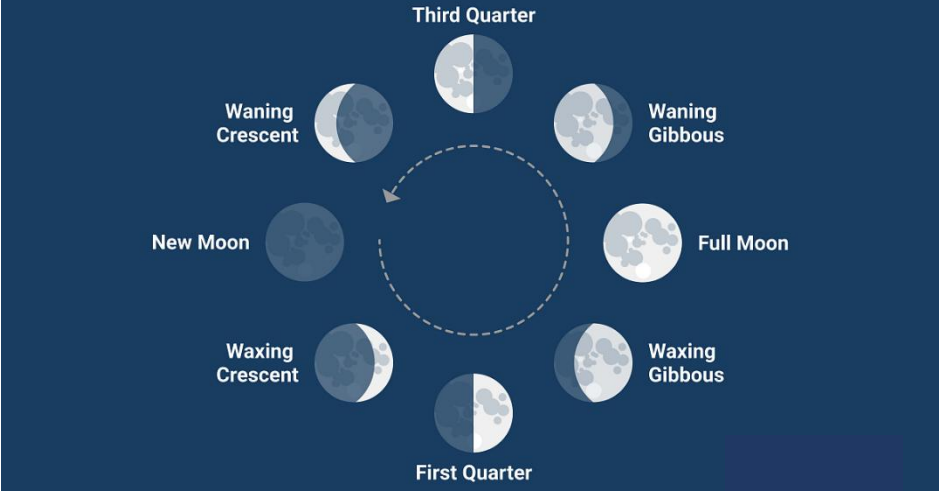
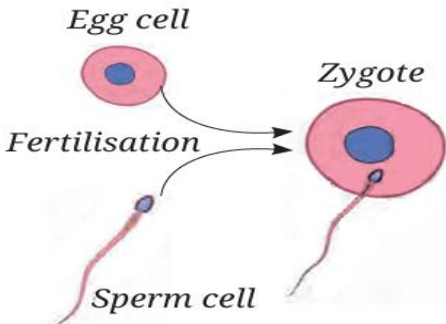
Class: VIII  
Date: 05/03/2026

Subject: SCIENCE  
Set- I-Marking scheme

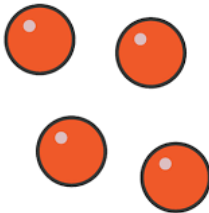
Max. marks:  
Time: 2 ½ Hours

SECTION A		
Q NO	VALUE POINTS	MARKS
1	b) Kaleidoscope	1
2	b) Jam contains sugar that prevents microbial growth	1
3	a) Female Anopheles mosquito	1
4	d) Nichrome offers high resistance, causing electrical energy to convert into heat	1
5	c) Iron has the strongest interparticle forces among the three	1
6	b) Gas particles have a lot of space between them, which can be compressed	1
7	d) Carbon dioxide	1
8	b) Copper and tin	1
9	a) Solubility of gases decreases with an increase in temperature	1
10	c) Nitrogen	1
11	c) Solar sidereal calendar	1
12	b) It rises about 50 minutes later each day	1
13	b) Population	1
14	c) Honeybees collecting nectar from flowers	1
15	d) Magnetic field	1
16	b) It keeps the planet's temperature just right for liquid water.	1



24		2
25	<p>i. Switch ON the digital weighing balance.</p> <p>ii. Observe the initial reading on the digital weighing balance display. It should show a zero reading. If not, then we must bring it to zero by pressing the tare or reset button.</p> <p>iii. Place a dry and clean watch glass or butter paper on the pan.</p> <p>iv. Note the reading on the digital weighing balance. Reset the digital weighing balance reading to zero by pressing the tare or reset button.</p> <p>v. Carefully place the solid object, such as a stone, on the watch glass and note the reading displayed on the balance.</p>	2
26	<p>a) Asexual reproduction: One parent / no fusion of gametes/offspring genetically identical</p> <p>Sexual reproduction: Two parents/fusion of gametes occurs / offspring genetically different.</p> <p>b)</p> 	$\frac{1}{2} + \frac{1}{2} = 1$  1
<b>SECTION C</b>		

27	<p><b>a) Characteristics of the image formed by a plane mirror:</b></p> <ul style="list-style-type: none"> <li>• Image is <b>upright (erect)</b></li> <li>• Image is <b>virtual</b></li> <li>• Image is of the <b>same size as the object</b></li> <li>• Image is <b>laterally inverted (left and right are reversed)</b></li> <li>• In a <b>plane mirror</b>, the <b>image is formed at the same distance behind the mirror as the object is in front of it.</b></li> </ul> <p><b>b) Formation of a rainbow:</b></p> <ul style="list-style-type: none"> <li>• A rainbow is formed due to the <b><u>dispersion of sunlight in raindrops</u></b></li> <li>• <b>Light splits into seven colours (dispersion)</b></li> <li>• Light is <b>reflected inside the raindrop</b></li> </ul> <p><b>c) Angle of reflection when the angle between the incident ray and the mirror = 50°:</b></p> <ul style="list-style-type: none"> <li>• Angle of incidence <math>i = 90^\circ - 50^\circ = 40^\circ</math> <math>i = 90^\circ - 50^\circ = 40^\circ</math></li> <li>• By <b>law of reflection</b>, angle of reflection <math>r = i = 40^\circ</math> <math>r = i = 40^\circ</math></li> </ul>	$\frac{1}{2} + \frac{1}{2} = 1$ (Any two)  1  1 (Only ans)
28	<p>a) Yeast produces carbon dioxide during respiration. The bubbles of gas fill the dough and make it rise, increasing its volume. This is why yeast is used in the baking industry.</p> <p>b) Not covering the nose and mouth while sneezing can spread viruses through droplets in the air, which may infect healthy people./ Common cold is a communicable disease.</p> <p>c) Viruses cannot carry out life processes on their own and can reproduce only inside a living host cell, so they are considered to be on the borderline between living and non-living things.</p>	1  1  1
29	<p>a) Avoid touching live wires / Switch off the main power when not in use.</p> <p>b) Yes, electromagnets have poles like permanent magnets / Their poles can be reversed by reversing the direction of current.</p> <p>c) Pure water is a non-electrolyte</p>	1  1  1

30	<p>a) Gases fill the container completely (they spread and occupy available space). / Diffusion</p> <p style="text-align: center;">Gas</p>  <p>b</p> <p>c) Gases are considered fluids because they can flow and take the shape of the container.</p>	<p>1</p> <p>1</p> <p>1</p>
31	<p>a) i) Sugar dissolves in water and occupies spaces between water molecules, so water level decreases.</p> <p>ii) Sand does not dissolve, so water level rises.</p> <p>b) Potassium permanganate spreads faster in hot water because particles move faster at higher temperatures.</p>	<p>1</p> <p>1</p> <p>1</p>
32	<p>a) Heating the air inside a hot air balloon decreases its density, making it lighter than the surrounding air, so it rises.</p> <p>b) Density = Mass/Volume = <math>200 \text{ g} \div 10 \text{ cm}^3 = 20 \text{ g/cm}^3</math>.</p>	<p>1</p> <p>(Formula + substitution + Ans + unit)  <math>\frac{1}{2} \times 4 = 2</math></p>
33	<p>a) Communication / Weather forecasting.</p> <p>b) To adjust the difference between the lunar and solar years.</p>	<p>1+1+1=3</p>

	c) The time taken by the Earth to complete one revolution around the Sun with respect to the seasons.	
	<b>SECTION D</b>	
34	<p>a) Cataract; the cloudy lens is removed, and an artificial lens is inserted.</p> <p>b) They have more rods than cones/ a large pupil, and a large cornea to allow more light to enter, helping them see in dim light.</p> <p>c) (i) Polished wooden table – Regular reflection; the surface is smooth, so parallel rays are reflected in a definite direction.</p> <p>(ii) Cardboard surface – Diffused reflection; the surface is rough, so parallel rays are scattered in all directions.</p> <p>d) Infinite number of images</p>	<p><math>\frac{1}{2} + \frac{1}{2} = 1</math></p> <p>1</p> <p>2</p> <p>1</p>
35	<p>a) A – Positive terminal (Carbon rod / Cathode), B – Electrolyte</p> <p>b) Electric heating devices are more convenient because they are cleaner and do not produce smoke or soot, reducing environmental pollution.</p> <p>c) Rechargeable batteries can be used many times, unlike dry cells, which are used once.</p> <p>d) Increase the number of coils of the wire / Use a stronger battery (increase current).</p>	<p>1</p> <p>1</p> <p>1</p> <p><math>1 + 1 = 2</math></p>
36	<p>a) Grass → Grasshopper → Frog → Snake → Eagle</p> <p>b) If fish population decreases, dragonflies increase, which eat butterfly and bee larvae, so the number of pollinators decreases, affecting seed production.</p> <p>c) Dead plants and animals would not decompose, leading to accumulation of waste and disruption of nutrient cycling in the environment.</p>	<p>2</p> <p>2</p> <p>1</p>

<b>SECTION E</b>		
37	<p>i) The magnet attracted the iron filings because iron is magnetic in nature.</p> <p>ii) It was confirmed that the gas released was hydrogen because a ‘pop’ sound was heard when a burning matchstick was brought near it.</p> <p>iii) Iron-sulfur mixture is classified as a mixture because it looked non-uniform and the individual components retained their properties / iron could be separated physically using a magnet.</p>	$\frac{1}{2} + \frac{1}{2} = 1$  $\frac{1}{2} + \frac{1}{2} = 1$  $1 + 1 = 2$
38	<p>i) Mangrove forests protect coastal areas from strong waves and storms.</p> <p>ii) Mangroves provide safe habitat for fish and crabs and nesting sites for birds.</p> <p>iii) When some mangroves were cut down, flooding increased, fewer fish were caught, and some bird species disappeared.</p>	1  1  $1 + 1 = 2$
39	<p>i) Geodiversity is the variety of landforms, rocks, and soils.</p> <p>ii) If the river dries up or gets polluted, plants and crops would suffer, animals may die or move away, and the ecosystem would become unbalanced.</p> <p>iii) People can plant more trees, keep the river clean, and take care of the soil to protect life in the valley.</p>	1  1  $1 + 1 = 2$
	<b>TOTAL MARKS</b>	<b>80</b>