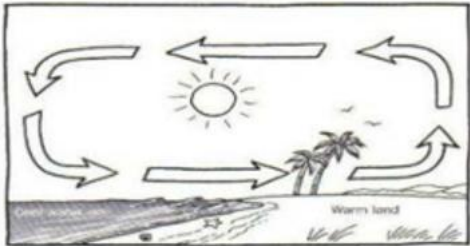




CLASS: VII	DEPARTMENT: SCIENCE	MAX. MARKS: 30
DATE: 27-11-2025	POST-MID-TERM EXAM ANSWER KEY	TIME: 1 hour

MARKING SCHEME

SECTION A (7X1=7)		MARKS
1	b) Applying a coat of paint or oil on the nails.	1
2	c) Non-metals are sonorous and produce sound when struck.	1
3	c) Melting is physical, burning is chemical.	1
4	c) Light-coloured clothes reflect most of the heat and keep the body cool.	1
5	i)Both A and R are true and R is the correct explanation of the Assertion.	1
6	iv)A is false but R is true.	1
7	i)Both A and R are true and R is the correct explanation of the Assertion.	1
SECTION B (3X2=6)		
8	a) Woollen clothes keep us warm because wool traps air between its fibers.Air is a poor conductor of heat, so it prevents the body heat from escaping to the cold surroundings. Thus, the layer of trapped air acts as an insulator, keeping us warm in winter.	1
	b) Radiation	1
9	a) Clouds are formed by the condensation of water vapour present in the atmosphere. When rainwater goes back to the earth, no new substance is formed.	1
	b) During digestion, various food materials are broken down to form new substances which can be absorbed by the body.	1
10	a) i)Mercury ii) Sodium and potassium (Any one)	$\frac{1}{2} + \frac{1}{2} = 1$
	b) Metallic oxides-Basic Non-metallic oxides-Acidic	$\frac{1}{2} + \frac{1}{2} = 1$
SECTION C (3X3=9)		

11	<p>a) A chemical reaction in which a substance reacts with oxygen and produces heat and/or light is called combustion.</p> <p>b) A combustible substance, also called 'fuel', Oxygen, Heat that allows the fuel to reach its ignition temperature.</p>	<p>1½</p> <p>1½</p>
12	 <p>The diagram illustrates the sea breeze phenomenon. It shows a cross-section of the ocean on the left and a 'Warm land' area on the right. A sun is positioned in the sky above the land. Arrows indicate the movement of air: on the land side, air is shown rising from the surface; on the sea side, air is shown descending and then moving horizontally towards the land. A large curved arrow at the top of the diagram shows the overall circulation of the air mass.</p> <p>SEA BREEZE</p> <p>SEA BREEZE - During the day, the land heats up much faster than seawater. So, the air above the land becomes hotter and rises. The cool air above the sea surface moves towards land to fill the space. This flow of air from the sea towards the land is called sea breeze.</p>	3
13	<p>a) Carbon dioxide</p> <p>b) Lime water turns milky.</p> <p>c) Acetic acid + Sodium hydrogen carbonate → Carbon dioxide + Other substances</p> <p>Calcium hydroxide + Carbon dioxide → Calcium carbonate + Water</p>	<p>½</p> <p>½</p> <p>2</p>
SECTION D (1X5=5)		

14	a) Chlorine- Used in water purification. Iodine- Used as an antiseptic for wound treatment.	1
	b) The bulb will light up with an iron nail. The bulb will not light up with a coal. Metals like iron allow electric current to pass through them, so the bulb lights up. Non-metal like coal do not allow electric current to pass, so the bulb does not glow. Hence, metals are good conductors, and non-metals are poor conductors of electricity.	2
	c) Ropes made of steel [a mixture of metal (iron) and non-metal (carbon)] wires can support heavy loads without breaking. Therefore, steel wire ropes are ideal for cranes and suspension bridges where high strength and safety are needed. The property of metals used here is ductility.	2
SECTION E (1X3=3)		
15	i) In gravel, the spaces between the particles are large and well-connected, so water passes through it very quickly. In sand, the spaces are smaller, so water seeps slowly compared to gravel.	1
	ii) In clay, the particles are tightly packed and have very tiny spaces between them. As a result, water seeps very slowly or sometimes almost not at all.	1
	iii) Areas with sandy or gravel soil allow better groundwater recharge, while clayey regions often lead to waterlogging.	1