ANNEXURE –C

DAV PUBLIC SCHOOLS, ODISHA ZONE

HALF YEARLY (2023-24), CLASS: VII, SUBJECT: SCIENCE& TECHNOLOGY

MARKING SCHEME

QN NO.	Value Points	Marks Allotted	PAGE NO. OF TEXT BOOK
1	Least count=Difference between two marked readings/Total no. of division between them	1	64
2	Conduction, convection(any one)	1	67,69
3	Symbiosis is the mutually benefitting association between two plants, e.g. lichens(Fungi and algae)any other relevant example	¹ / ₂ +1/2	6
4	(i) earthworm- moist skin (ii) fish-gills	½+1/2	107
5	A chemical reaction in which more than one product is obtained from a single reactant .Any example of decomposition reaction (any other relevant reaction)	1	39
6	a. Chlorine -Cl b. Potassium-K	1	32
7	 Necessary- a) essential substances like food, oxygen, water etc need be transported to all parts b) waste products need be transported to the area from where they will be removed c) Helps to transfer water to a great height in tall trees d) helps to lower the plants body temperature(any one point) 	1	118
8	$H_2+Cl_2 \rightarrow 2 \ HCl$	1	39
9	Haemoglobin	1	120
10	Formation of lactic acid due to anaerobic respiration	1/2+1/2	104
11	Use of sprinklers and drip irrigation techniques	¹ / ₂ +1/2	240
12	High resistivity, Low melting point	1/2+1/2	251
13	The upper layer of groundwater is called water table.	1	238
14	High resistivity, High melting point	1/2+1/2	250, 255
15	(c) A is true ,R is false	1	31,32

15	(c) A is true, R is false	1	31,32
16	(b) Both A and R are true and R is not the correct explanation of A	1	3
17	i. (d). Left atrium	1X4=4	119
	ii. (c) four		
	iii.(c) Right atrium		
	iv. (b). septum		
18	(i) (b) 0.3	1X4=4	238
	(ii) (d) All of these		
	(iii) (a)Deforestation		
	(iv)(d)Importance of water		

10	The handle of earling utancil is made of wood as wood is an	1 . 1	60.61
19	The handle of cooking utensil is made of wood as wood is an	1+1	68,61
	insulator and we will not get hurt where as its bottom is coated with		
	copper as copper is a conductor and will better absorb/conduct heat		
	easily.		
	OR		
	Two types of physical changes are as following:		
	(a) Change of state: when water is heated over a flame it starts boiling		
	and gets converted into steam.	1+1	
	(b) Change in temperature: when heat is added to a body its		
	temperature rises.		
20	Role in waste water management to maintain a clean and healthy	1+1	240 241
	surrounding (any 2 points)		
	OR	1+1	
	Brief explanation of rain water harvesting		
21	Green plants are the source of energy for all the living organisms so	1+1	3
21			
	that they can perform their normal functions. If all green plants and		
	trees disappear, all the organism depending on them for food, oxygen		
	and shelter. They will also die.		
22	milk teeth and permanent teeth.(2-point difference)	1+1	18
23	(a) due to clotting of blood which prevents bleeding.	1+1	121
	(b) blood platelets		
24	When the current flows through any wire, a magnetic field is		253
27		1+1	233
	developed around that wire or coil and it behaves like magnet. It can		
	be proved by placing a magnetic compass around the current carrying		
	wire, it will show deflection of the needle.		
25	Organ 'A' is kidney which is bean-shaped and helps in the removal	½ X4	123
	of urea. B is a waste material from the blood. 'C' is ureter, 'D" is the		
	urethra which is the small opening at the end of urinary bladder.		
26	any two advantages of Lightning	1+1	167
	,		
27	(a) Aluminium oxide (Al ₂ O ₃)	1+1	35,36
	(b) Calcium carbonate (CaCO ₃)		,
	By criss- cross method		
28	a. A- Salivary gland, B- Food pipe or Oesophagus, C- liver, D-	1/2	17,24
20	Stomach, E- Pancreas, F- Small intestine, G- Large intestine		17,24
		x4(labellin	
	b. Function of D- Secretes digestive juices/ helps in digestion of	g)	
	proteins/ secretes gastric juices containing HCl that kill bacteria in	1/ 2	
	food (any one)	½ x2	
	Functions of F –Complete digestion of food /absorption of food.		
	OR	1,	
	i. P: nutrition in amoeba, Q: pseudopodia, R: food vacuole,	½ x4	
	S: egestion.		
	ii. Locomotion, trapping of food (Any one)	1	
•			
29	Activity-7 an activity to show that black objects absorb heat better	3	72
	than white objects		64,65
	OR		
	3-point difference between clinical and ordinary thermometer	3	
30	3 point difference between aerobic and anaerobic respiration	3	103
	OR		104
			110
	Activity -3 of Respiration in organisms	3	110

31	i. As Rhizobium bacterium is commonly present in root nodules of	1	5,6,7
31	, <u>, , , , , , , , , , , , , , , , , , </u>	1	3,0,7
	leguminous plant that can take atmospheric nitrogen and convert it	1.1	
	into a soluble form like nitrates and thus enriches the soil with	1+1	
	nitrogen.		
	Difference between Nutrition in mushroom and Cuscuta.		
	i. On the basis of mode of nutrition.		
	ii. On the basis of their food		
	(any two relevant points)		
32	Charged by a positively charged rod, through	0.5+1	164,165
	(a) conduction is positive as same charge flows due to direct contact		,
	(b) induction is negative as opposite charge is induced by electric	0.5+1	
	induction		
33	(a) No, the amount of heat produced in both the wires will be	1/2	248,249
	different because amount of heat produced in a wire on passing	+1/2+1+1	210,219
	electric current depends on the length of wire and here length is	11/2/11/1	
	different for both the wires.		
	©overloading: connection of more than one device/appliance to a single socket.		
	short circuit: touching of the live and neutral wire, due to faulty		
	insulation.		
34	The working of an electric bell	3+2(diagra	249,255
	explanation + Diagram	m)	256
	OR	111)	230
	a) Even if same amount of current flows through the connecting		
	wires and the bulb filament, it is only the filament that glows, as		
	, , , , , , , , , , , , , , , , , , ,	1+1	
	internal resistance is negligible in wire but higher in filament	1+1	
	b)Three applications of an electromagnet are –		
	i) Electromagnets are used in electric bells and loudspeakers.		
	ii) It is also used in mobile crane to lift and transfer heavy iron rods &	1	
	machinery.	1	
	iii) Many toys also have electromagnets inside them. (Any other	1	
	relevant point)		
35	a. (Any relevant experiment) to show that the charges are always	3+2	163,164,
	produced in pairs. So the total charge on a pair of objects, that		168
	have been rubbed together, is zero. As the combination behaves as		
	uncharged object and will not attract anything.		
	b. Any two precautions that a person can take if he is caught outside		
	in the open during a lightning strike.		
36	a. In test tube P, blue black colour appeared because of presence of	2+3	20,
	starch.		18,19
	In test tube Q, colour of iodine solution did not change because of		
	starch is digested into sugars by the action of saliva in our mouth.		
	b. Any three preventive measures that one should adopt for avoiding		
	tooth decay		
37	a. cellular respiration- The process in which the cells use oxygen to	1	103.108
	breakdown the sugar (glucose) to release energy.		109
	b. A- Nasal passage/ nasal cavity	½X4	
	B- Pharynx C- Trachea/ windpipe D- Right lung/ lung		
	c. Changes during expiration- (four points)		
		2	
101	i. the muscles, that lift rib cage and lower the diaphragm, relax	2	
	ii. the rib cage and diaphragm returns to original position	2	
	· · ·	2	