

DAV PUBLIC SCHOOLS, ODISHA ZONE

PERIODIC ASSESSMENT-II (2023-24)

CLASS: VIII

SUBJECT: SCIENCE

BLUE PRINT OF QUESTION PAPER

SL NO.	CHAPTERS / UNITS	MARKS ALLOTTED IN SYLLABUS	1 MARK (MCQ/A&R)	2 MARKS (SA-I)	3 MARKS (SA-II)	5 MARKS (LA)	4 MARK (CBQ)	TOTAL MARKS	TOTAL NO. OF QUESTIONS
1	Ch-2 Microorganisms : Friends orFoes	10	2		1	1(OR)		10	4
2	Ch-4 Force and Pressure	8	2 1 A/R	1	1			8	5
3	Ch-5 Friction	10	1	1	1(OR)		1	10	4
4	Ch-6 Sources of energy	10	1	1	1(OR)		1	10	4
5	Ch- 7 Combustion	10	1 1 A/R		1	1(OR)		10	4
6	Ch-8 Conservation of Plants andAnimals	8	2	1(OR)			1	8	4
7	Ch-9: Crop Production & its Management	7	2 1 A/R	2				7	5
8	Ch-16 Electric current and its chemical effects	12	2 1 A/R			1(OR)	1	12	5
9	Ch- 19 Pollutionof Air	5	2		1			5	3
G. TOTAL		80	15+4	6×2	6×3	3×5	4×4	80	38

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SUBJECT:

QUESTION WISE ANALYSIS

Q . No.	Chapters / Units	Forms of Question (MCQ, AR, SA-I , SA-II, LA, CBQ)	Marks Allotted	Typology of Questions (Knowledge (K), Understanding (U), Applications (A), Hots(H) & Skills (S)etc.)
1	Ch-2 : Microorganisms : Friends or Foes	MCQ	1	K
2	Ch-2 : Microorganisms : Friends or Foes	MCQ	1	K
3	Ch-4 : Force and Pressure	MCQ	1	U
4	Ch-4 : Force and Pressure	MCQ	1	A
5	Ch-6: Sources of energy	MCQ	1	K
6	Ch-5 Friction	MCQ	1	K
7	Ch-16: Electric current and its chemical effects	MCQ	1	A
8	Ch-16: Electric current and its chemical effects	MCQ	1	K
9	Ch- 7 : Combustion	MCQ	1	A
10	Ch-8: Conservation of Plants and Animals	MCQ	1	U
11	Ch-8: Conservation of Plants and Animals	MCQ	1	K
12	Ch-9: Crop Production & its Management	MCQ	1	U
13	Ch-9: Crop Production & its Management	MCQ	1	U
14	Ch- 19: Pollution of Air	MCQ	1	H
15	Ch- 19: Pollution of Air	MCQ	1	U
16	Ch- 7 : Combustion	A/R	1	A
17	Ch-9: Crop Production & its Management	A/R	1	U
18	Ch-4 : Force and Pressure	A/R	1	A
19	Ch-16: Electric current and its	A/R	1	R

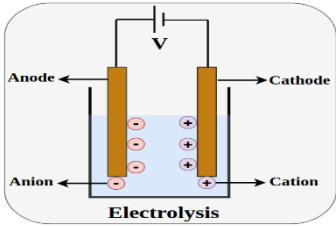
	chemical effects			
20	Ch-8: Conservation of Plants and Animals	SA-I	2	U
21	Ch-9: Crop Production & its Management	SA-I	2	H
22	Ch-9: Crop Production & its Management	SA-I	2	K
23	Ch-6 : Sources of energy	SA-I	2	H,K
24	Ch-4 : Force and Pressure	SA-I	2	U/A
25	Ch-5 Friction	SA-I	2	U/A
26	Ch-2 : Microorganisms : Friends or Foes	SA-II	3	A
27	Ch- 19: Pollution of Air	SA-II	3	K
28	Ch-5 Friction	SA-II	3	U,K,S
29	Ch- 7 : Combustion	SA-II	3	S,A,K
30	Ch-6 : Sources of energy	SA-II	3	H,K
31	Ch-4 : Force and Pressure	LA	5	K,S
32	Ch- 7 : Combustion	LA	5	A,U,H
33	Ch-16: Electric current and its chemical effects	LA	5	H,S,A,K
34	Ch-2 : Microorganisms : Friends or Foes	LA	5	U
35	Ch-5 Friction	CBQ	4	U/S/K
36	Ch-6 : Sources of energy	CBQ	4	U,K
37	Ch-8: Conservation of Plants and Animals	CBQ	4	A
38	Ch-16: Electric current and its chemical effects	CBQ	4	A,K,S

ANNEXURE –C**DAV PUBLIC SCHOOLS, ODISHA ZONE****PERIODIC ASSESSMENT-II (2023-24)****CLASS: VIII****SUBJECT: SCIENCE****MARKING SCHEME****TIME ALLOWED: 3 HOURS****MAX. MARKS: 80**

Q. NO.	VALUE POINTS	MARKS ALLOTTED	PAGE NO. OF TEXT BOOK
1	(b) Aspergillus	1	28
2	(b) Common cold -Bacteria	1	25
3	(a) Increase with depth	1	70
4	(b) magnitude of force applied by A is smaller than B	1	62
5	(a) Above that of saline water	1	113
6	(d) Static friction > Sliding friction > Rolling friction	1	94
7	(b) distilled water	1	284
8	(b) chemical effect of electric current	1	288
9	(a) Unburnt Carbon particles	1	128
10	(c)Caribbean monk seal	1	143
11	(b) plant and wildlife extinction and scarcity of forest products.	1	137
12	(c) it levels the fields by breaking the crumbs	1	155
13	(d) winnowing	1	160
14	(c) CO	1	126
15	(d) All of the above	1	348-349
16	(c) A is true but R is false	1	123
17	(c) A is true but R is false	1	156
18	(a) Both A and R are true and R is the correct explanation of A.	1	73

19	b) Both assertion and reason are true but reason is not the correct explanation of assertion.	1	287
20	To find abundant food and a favorable place to breed, in combination with a reading of the earth's magnetic field. This is achieved through an inbuilt magnetic compass which is a tiny mass of tissue present between the eye & the brain in birds. OR 1. It plays an important role in the functioning of food chain and food web. 2. It helps to maintain the ecological balance.	1+1	145 ,138
21	(a) Nitrogen (b) Pea is a leguminous plant. Its root nodules contain <i>Rhizobium</i> bacteria. These bacteria fix atmospheric nitrogen into nitrates that can be used by plants as a source of nitrogen.	1+1	157
22	Supply of water to crops at appropriate intervals is called irrigation. 2 methods are (i) Sprinkler system- (ii) Drip irrigation	1+ 0.5+0.5	158-159
23	(a) X is Bituminous coal, Y is Coke. (b) $CO + H_2$	$\frac{1}{2}+1/2$ 1	112
24	(a) pressure reduced to half (b) pressure reduced to half	1+1	82
25	Shortest distance in sand surface as the surface is rough, maximum friction is there to oppose motion.	1+1	Exemplar 71
26	(a) food from puffed cans should never be consumed as it indicates the contamination and spoilage of food by microbes (b) Because not completing the prescribed course may make them ineffective when used in future. (c) Sugar reduces the water content and make it unavailable for the growth of microbes.	1+1+1	30
27	Excessive carbon dioxide, smoke and nitrogen dioxide when released into the atmosphere, come in contact with water vapors. This results in the formation of sulphuric acid and nitric acid. these acids when fall down with rain making it acidic. Such rain is called acid rain. Harmful effect- i) Statue & structures made from marble & lime stone get slowly corroded (marble cancer). ii) Articles made of metal like gold & silver ornaments slowly lose their luster. (any other suitable point)	1+2	349

28	<p>(a) As we know that, the friction is caused by the interlocking of irregularities or roughness in the two surfaces in contact. So, in the case of static friction the interlocking between the two objects is very strong, but in case of the sliding friction there is a less time of getting interlocking of the roughness of the surface with each other. So, the sliding friction is less than the static friction.</p> <p>(b) Ball bearing.</p> <p style="text-align: center;">OR</p> <p>(a) The force needed to start a cart is applied against the Static friction caused by the stronger interlocking of the irregularities or roughness of the surface of wheel and floor. Once, the motion starts the contact points on one surface do not get enough time to lock into the contact point of another surface.</p> <p>(b) Materials which are used to reduce the friction.</p> <p>(c) To reduce the friction.</p>	2 + 1	92,99
29	<p>(a) Heat produced by burning 1Kg fuel $=220,000 \times 1/5.5 = 40,000 \text{KJ}$ Thus calorific value = 40,000 KJ/kg</p> <p>(b) Be cheap, Easy to transport, Easy to store, have high calorific value (Any two)</p>	1+1 $1/2+1/2$	129
30	<p>a) Godavari Krishna Basin, Mumbai High, Tripura (Any two)</p> <p>b) Paraffin wax – used as grease, for making Vaseline, ointments. (Any two)</p> <p>c) The process of conversion of dead plants material into coal due to geological action is called carbonization.</p> <p style="text-align: center;">OR</p> <p>a) The better fuel is coal as having high calorific value.</p> <p>b) Jharkhand, Madhya Pradesh, Odisha & west Bengal (any two)</p> <p>c) used far manufacture of synthetic dyes, drugs, explosive, perfumes, paints, photographing material, roofing material (any two)</p>	$1/2+1/2$ $1/2+1/2$ 1 1 $1/2+1/2$ $1/2+1/2$	111-114
31	<p>(a) Fluid friction – The frictional force exerted by fluids against a moving object</p> <p>(b) To reduce fluid friction</p> <p>(c) increases</p>	1+1+1	99,101
32	<p>(a) i) Due to low ignition temperature. ii) Cut off the supply of air and the fire will stop. iii) Electric current will flow through water thereby giving a severe electric shock which may prove fatal</p> <p>(b) i) Zone A , Because complete combustion takes place in this zone as it is getting maximum oxygen. ii) $A > B > C$</p> <p style="text-align: center;">OR</p> <p>(a) (i) Heat supplied to paper is transferred to aluminum pipe. Due to the continuous transfer of heat from paper to aluminum pipe, the ignition temperature of paper is not achieved easily. (ii) CNG produces less harmful products and is more Eco-</p>	3+1+1	129,130

	<p>friendly.</p> <p>(iii) On striking, friction generates enough heat to light the matchstick by making the chemical catch fire.</p> <p>(b) (i) release of carbon monoxide gas. (ii) release of unburnt carbon particles in the form of soot.</p>	3+2	123, 126
33	<p>(a) Copper sulphate in solid form is electrically neutral and it does not have free electron or ions to carry the current. Therefore it does not conducts electricity. But when it is dissolved in water, it dissociates into positively charged copper ion and negatively charged sulphate ions. These ions carry the current, so copper sulphate solution conducts electricity.</p> <p>(b) Electrolysis of water (for diagram, page 288 of the text book can be referred.)</p>  <p>Diagram labelling At anode – oxygen gas, At cathode- hydrogen gas c) Michael Faraday</p> <p style="text-align: center;">OR</p> <p>a) i) Alessandro Volta ii) Faraday and Henry b) The water in molten state not only breaks sodium chloride in to sodium and chlorine ions but also separate these ions. It is the movement of these ions within the solution make the solution conductive to electricity. c) No, Distilled water don't conduct electricity Distilled water will conduct electricity by (i) adding salt (ii) adding a base (iii) adding an acid (any two)</p>	<p>1+1</p> <p>1 + ½ + ½</p> <p>1</p> <p>Or</p> <p>1</p> <p>1</p> <p>1</p> <p>1 + ½ + ½</p>	<p>298</p> <p>288</p> <p>293</p> <p>287</p> <p>293</p> <p>298</p> <p>285</p>
34	<p>(a) i. protozoa ii. Using mosquito nets, mosquito repellents, controlling mosquito population iii. Fungus iv. Maintaining good personal hygiene v. Bacteria, vi. Proper disposal of waste / using disinfected water</p> <p>(b) dogs, monkeys</p> <p>(c) Antibiotics are the chemicals that inhibit the growth of harmful microorganisms by affecting their life processes.</p> <p style="text-align: center;">OR</p> <p>(a). Disease causing microbes are called as pathogens. (b). disease that can spread from an infected person to a healthy</p>	<p>0.5+0.5</p> <p>0.5+0.5</p> <p>0.5+0.5</p> <p>0.5+0.5</p> <p>0.5+0.5</p> <p>1</p>	<p>25, 26 & 22</p>

	<p>person are called communicable diseases. Any 2 examples.</p> <p>(c). Pressurised heating of milk for short time. To keep bacterial growth in check.</p>	<p>1+0.5+0.5</p> <p>1+1</p>	<p>24 & 29</p>
35	<p>(a)in oil</p> <p>(b)reduce the speed of moving object (any suitable answer)</p> <p>(c)Streamlined</p> <p>(d) Fish ,Birds (any suitable answer)</p> <p>(e) Correct definition</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p>	<p>Page no 99,100,101, 102</p>
36	<p>(a) Asphalt</p> <p>(b) Diesel</p> <p>(c) The process of separating different components of petroleum into their various useful forms</p> <p>(d) Petra and Oleum</p> <p>(e) Rock oil</p>	<p>1</p> <p>1</p> <p>1</p> <p>$\frac{1}{2}+\frac{1}{2}$</p> <p>1</p>	<p>Pg 112 & 113</p>
37	<p>(a) The variety of life existing on earth.</p> <p>(b) Flora and fauna</p> <p>(c) Tiger</p> <p>(d)Wildlife Sanctuaries are the areas where animals are protected from any disturbance to them and their habitat.</p> <p>(e)Biosphere Reserves are protected areas meant for the conservation of plants and animals.</p> <p>(Any four)</p>	<p>1+1+1+1</p>	<p>142</p>
38	<p>(a) Electro Magnetic Induction.</p> <p>(b) the bulb will glow brighter.</p> <p>(c) the bulb stops to glow.</p> <p>(d) yes, the bulb will glow.</p> <p>(e) the direction of the current is reversed.</p>	<p>1+1+1+1</p>	<p>292,293</p>