ANNEXURE -A

		DAV PUBLIC SCHOOLS, ODISHA							
		PA-III Exam., SUBJECT - SCIENCE CLASS : IX							
		BLUE PRINT OF QUESTION PAPER							
Sl No.	**Chapters / units**	**Marks Allotted in Syllabus**	**MCQS(08 NO.)**	**A & R QS(02 NOS.)**	**CASE BASED QS(02NOS.)**	**SA-I (3 Nos.)**	**SA-I I (2 Nos.)**	**LA (2 Nos.)**	**TOTAL (19NOS.)**
1	**Ch: Atoms and Molecules**	10	02	01		01		01	05
2	**Ch: Structure of Atom**	03	01			01			02
3	**Ch: 6. Tissues**	14	02		01		01	01	05
4	**Ch: 10 Work and Energy**	13	03	01	01	01	01		07
MARKS		**40**	**08**	**02**	**08**	**06**	**06**	**10**	**19**

ANNEXURE -B

DAV PUBLIC SCHOOLS, ODISHA, ZONE

PA-III EXAMINATION:2023-24,
STD-IX,
SUB-SCIENCE

Full marks- 40

QUESTIONWISE ANALYSIS

Q. No	Unit/ Name of chapter	Forms of Question - (LA, SA, VSA)	Marks Allotted	(R), (U), (Ap), (An), (EV)(Cr)
1	Atoms and molecules	VSA	1	U
2	Atoms and molecules	VSA	1	APP
3	Structure of atom	VSA	1	U
4	Work and energy	VSA	1	AN/EV
5	Work and energy	VSA	1	AN/EV
6	Tissues	VSA	1	U
7	Tissues	VSA	1	U
8	Work and energy	VSA	1	U
9	Atoms and molecules	A/R	1	AN
10	Work and energy	A/R	1	AN/EV
11	Atoms and molecules	SA-I	2	APP
12	Structure of Atoms	SA-I	2	APP
13	Work and energy	SA-I	2	APP
14	Tissues	SA-II	3	U
15	Work and energy	SA-II	3	APP
16	Atoms and molecules	LA	5	U
17	Tissues	LA	5	U
18	Tissues	Source Based	4	AN/EV
19	Work and energy	Source Based	4	AN/EV

ANNEXURE –C

DAV PUBLIC SCHOOLS, ODISHA

PERIODIC ASSESSMENT III . , SUBJECT __SCIENCE_CLASS : IX

MARKING SCHEME

Q.NO	Value Points	Bit Marks	Page no. Of NCERT /NCERT EXEMPLAR
1	(b) $M_2(CO_3)_3$	1	NCERT PAGE 33
2	(d) SO_4^{2-}	1	NCERT PAGE 37
3	(d) Cathode rays are chargeless and massless radiations	1	NCERT PAGE 46
4	(d)	1	NCERT PAGE 154
5	(c)negative	1	NCERT PAGE 148
6	(c)Columnar epithelial tissue , Absorption	1	NCERT PAGE 75
7	(b) conducting tissue	1	NCERT PAGE 73
8	(c) chemical energy to electricaal energy	1	NCERT PAGE 154
9	(c)Assertion (A) is true, but reason (R) is false.	1	EXEMPLAR PAGE-35
10	(a) Assertion (A) is false, but reason (R) is true.	1	NCERT PAGE 149
11	(a) A group of two or more atoms that are chemically bonded together is called molecule.(any other correct answer) (b) (i) Phosphorus molecule-4 (ii) PO_4^{3-} ion--5	1 0.5 x2	NCERT PAGE 35
12	Thomson's model of atom. Postulates: (i) An atom consists of positively charged sphere and electrons are embedded in it. (ii) The negative and positive charges are equal in magnitude. So atom as a whole is electrically neutral.	0.5 1+0.5	NCERT PAGE 47

13	Given, m = 50kg, h = 30 x 20 = 600 cm = 6m t = 30s, g = 10 m/s^2 P = mgh/t = (50 x 10 x 6)/30 = 100W	½ ½ 1	EXEMPLAR PAGE-69
14	(a) Neurons are highly specialized for being stimulated and then transmitting the stimulus very rapidly from one place to another within the body, through brain or spinal cord . (b) Nerve- many nerve fibres bound together by connective tissue make up nerve. Nerve impulse- nerve impulses are the signals pass along the nerve fibre and allow us to move our muscles	1 1+1	NCERT PAGE 76-77
15	(a) let us consider a body of mass m is moving with velocity u W = F. s ……(i) According to Newton's 2nd law of motion, F = ma ……(ii) From 3rd equation of motion, $v^2 = u^2 + 2as$ $s = \frac{v^2-u^2}{2a}$……(iii) Substituting values of F and s from (i), (ii) and (iii) , we have $W = ma(.\frac{v^2-u^2}{2a})$ $= \frac{1}{2} m v^2 - \frac{1}{2} m u^2$ $= KE_f - KE_i$ (b)Power P= F x v Power (Armaan) = 12x 15 = 180 W Power (Karan) = 12x 15 = 180 W Ratio = 180 : 180 = 1:1	½ ½ ½ ½ ½	NCERT PAGE 151 NCERT PAGE 156
16	(a)The formula unit mass of a substance is a sum of the atomic masses of all the atoms in a formula unit of a compound. (b) i. Cations—K^+, Anion—CH_3COO^- ii. Cation –NH_4^+, Anion—Cl^- (c) (i) Magnesium Sulphide—Magnesium, Sulphur (ii) Ammonia—Nitrogen, Hydrogen	1 1+1 1+1	NCERT PAGE 33
17	(i) Cardiac muscular tissue , (c) Smooth muscular tissue (ii) (i) Both uni-nucleated . (ii)Both are involuntary. (iii)Skeletal muscles are called voluntary muscles	0.5 x 2 1+1	NCERT PAGE NO.76

<table>
<tr><td></td><td>because they are under our conscious control and, for the most part, adhere to bones and move them.
(iv) If striated muscles contract rapidly for long period , it cause muscle cramp.</td><td>1

1</td><td></td></tr>
<tr><td>18</td><td>(a) Matrix of connective tissue varies according to the function of connective tissue .
(b) Areolar connective tissue.
(c)
<table><tr><td>BONE</td><td>CRTILAGE</td></tr><tr><td>Strong and non-flexible connective tissue.</td><td>Flexible connective tissue.</td></tr><tr><td>It has hard matrix made of protein ,calcium and phosphorus .</td><td>Matrix made of sugar and protein.</td></tr><tr><td>It provides skeletal support to body .</td><td>Provide support and flexibility smoothen bone surface at joint .</td></tr></table>(Any two)

OR

(c)
<table><tr><td>TENDON</td><td>LIGAMENT</td></tr><tr><td>Attach muscle to bone</td><td>Attach bone to bone</td></tr><tr><td>Grate strength</td><td>Considerable strength</td></tr></table></td><td>1

1

2

2</td><td>NCERT PAGE NO.74,75 and 76</td></tr>
</table>

19	(a)P.E.at A : P.E.at B = mgh_A:mgh_B $=h_A/h_B$=75/15 = 5:1 (b) Change in P.E. = $mg(h_A-h_B)$ =60X10(75-15) J =36000J (c) ½ mv^2=36000 0r mv^2=72000 Or v^2=(72000/60) Or v = $\sqrt{1200}$ =34.6m/s OR Let P.E at a height h = x ATQ K.E= 2x M.E. at height h=x+2x=3x Total M.E.= mgh_A=60X10X75=45000J 3x=45000 Or x=15000J=mgh Or h= 15000/(60x10) =25m	1 ½ ½ 1 1 1 1	NCERT PAGE 159 NCERT PAGE 154