

KENDRIYA VIDYALAYA SANGATHAN BANGALORE REGION

SUMMATIVE ASSESSMENT-II(MARCH 2014)

MARKING SCHEME

CLASS: IX SCIENCE

Q NO	VALUE POINTS SECTION -A	MARKS
1	Definition, example	$\frac{1}{2} + \frac{1}{2}$
2	Acquired Immuno Deficiency Syndrome	1
3	Diatomic and triatomic(ozone)	$\frac{1}{2} + \frac{1}{2}$
4	Dorsal notochord, dorsal nerve cord, paired gill slits, post anal part	$\frac{1}{2} \times 4 = 2$
5	(a)generator (b) cell (c)electric bulb (d) solar cell	$\frac{1}{2} \times 4 = 2$
6	Time taken, $t=2s$; velocity of sound, $v=340m/s$; Distance, $d=?$ $V = 2d/t$; $2d=v \times t=340 \times 2$; Therefore distance , $d =340$ $\times 2/2=340m$	$(\frac{1}{2})$ $(\frac{1}{2}+\frac{1}{2}+1)$
7	a)No. of moles=mass/molar mass = $9/18=0.5$, no. of molecules= no. of moles* Avagadro number= $0.5 \times 6.022 \times 10^{23} = 3.011 \times 10^{23}$ b)definition	$\frac{1}{2} + \frac{1}{2}$ $\frac{1}{2} + \frac{1}{2}$ 1
8	a)definition b) $BaCl_2$, $Al_2(SO_4)_3$	1 1+1
9	Correct postulates	$\frac{1}{2} \times 6 = 3$
10	One difference between acute and chronic Chronic, one reason with an example (B.P, Diabetes, Cancer etc)	1 2
11	a)pencillin blocks the biochemical pathway of making	2

	<p>cell wall in bacteria, hence the newly formed bacteria lack cell wall and die easily</p> <p>b) Viruses have very few biochemical pathway of their own hence difficult</p>	1
12	<p>a) Upward force exerted by a fluid on an object immersed in it</p> <p>(b) Radius of the sphere, $r = 2 \times 10^{-2} \text{m}$, therefore volume of the sphere, $V = \frac{4}{3} \pi r^3 = \frac{4 \times 3.14}{3} \times [2 \times 10^{-2}]^3 = 33.5 \times 10^{-6} \text{ m}^3$ Force of buoyancy = $V \times \text{density of water} \times g = 33.5 \times 10^{-6} \times 1000 \times 10 = 33.5 \times 10^{-2} \text{N}$</p>	<p>(1)</p> <p>$(\frac{1}{2} + \frac{1}{2})$</p> <p>$(\frac{1}{2} + \frac{1}{2})$</p>
13	<p>. If the force (F) acts in the direction of displacement (S) of the body work done is positive with diagram and example</p> <p>If the force (F) acts at right angles to the displacement (S) of the body then no work is done by the force with diagram and example</p> <p>If the force (F) acts just opposite to the displacement (S) of the body then work done by the force is negative with diagram and example</p>	<p>1</p> <p>1</p> <p>1</p>
14	<p>Time = 10h Total power $P = 4 \times 500 = 2000 \text{ watt} = 2 \text{ kW}$ Therefore energy = ? Power = energy / time Therefore energy consumed = power \times time $= 2 \times 10 = 20 \text{ kWh}$</p> <p>$1 \text{ kWh} = 3.6 \times 10^6 \text{ J}$</p> <p>Therefore energy consumed $= 20 \text{ kWh} = 20 \times 3.6 \times 10^6 \text{ J} = 72 \times 10^6 \text{ J}$</p>	<p>$(\frac{1}{2})$</p> <p>$(\frac{1}{2})$</p> <p>1</p> <p>$(\frac{1}{2})$</p> <p>$(\frac{1}{2})$</p>
15	<p>(a) 20Hz - 20kHz</p> <p>(b) Definitions</p>	<p>1</p> <p>1</p>

	Examples(any one each)		1
16	Sound Waves	Light Waves	3
	Sound waves are mechanical waves	Light waves are non mechanical waves	
	Sound waves are longitudinal waves	Light waves are transverse waves	
	Speed of sound is less	Speed of light is more	
17	Importance –acts as blanket, slows down the escape of heat during night, prevents entry of harmful rays during day, and keeps the average temperature of the earth steady all thru the year. CFCs or nitrogen oxides or methane any one		$\frac{1}{2} \times 4 = 2$ 1
18	Correct answers		1+1+1
19	a)Three important features b) i) A & B, ii) C & D iii) two applications		3 $\frac{1}{2} + \frac{1}{2} + 1$
20	Aves, Annelida, Echinodermata, porifera, Amphibia		 1*5=5
21	Two differences Bryophyta Protista Differences		1 1 1 2
22	(a) Definition and derivation of equation for kinetic energy. (b) Object made of iron has more potential energy as potential energy is directly proportional to mass of the object.		1+2 2
23	(a)Definitions of quality and intensity of sound. (b) 2 points of difference between loudness and		 (1+1)

	<p>tap water, weight W2 in tap water is more than its weight W3 in salty water, i.e. $W2 > W3$ and its weight in air, $W1 >$ its weight in tap water, W2. Therefore, $W1 > W2 > W3$.</p>	$(\frac{1}{2} + \frac{1}{2} + \frac{1}{2})$
36	<p>a) False, 3 pairs b) False, jointed legs c) True d) False, chitinous exoskeleton</p>	$\frac{1}{2} * 4 = 2$
	SECTION C	
	<p>(a) Administration's planning to enhance the monitoring of ecosystem with a focus on recession of glaciers and their impact on river system. (5 points) (5)</p> <p>(b) The National Disaster in Uttarakhand on 16 & 17 June, 2013 happened due to the flood and land slide hit the areas, it was due to natural phenomenon. The abnormally high amount of rain (more than 400 per cent) in the hill state was caused by the fusion of two types of cloud system. But disaster was compounded by unscientific development without taking into consideration the ecology of the region like cutting trees for making road, allowing too much construction in the region, opting for many Hydroelectric Power Projects. (5)</p>	5+5