



OSDAV Public School, Kaithal

Periodic Test 2 (July,2024)

Class :IX

Subject : Science

Set- B

Time: 1hr 20 minutes

M.M. : 30

General Instructions:-

All questions are compulsory.

Q.N.	Physics/ Chemistry	Marks
1	Name the quantity which is measured by the slope of velocity time graph.	1
2	When will you say body is in nonuniform acceleration?	1
3	Evaporation is called surface phenomenon.explain	1
4	A Gas exerts pressure onthe walls of the container.explain	2
5	Distinguish between boiling and evaporation .(any two)	2
6	A racing car has a uniform acceleration of 3 ms^{-2} .what distance will it cover in 3 sec after start?	2
7	Why does a desert cooler cool better on a hot dry day?	2
8	Distinguish between speed and velocity.(any three)	3
9	A student while driving to school computes the average speed for his trip to be 20 kmh^{-1} .on his return trip along the same route the average speed is 30 kmh^{-1} .What is the average speed for students trip?	3
10	On increasing the temperature of solids,the kinetic energy of the particles increases.due to the increase in the kinetic energy the particle start vibrating with greater speed.Now answer the following questions: (a)what is the physical state of water at 0°C . (b)Why solid carbon dioxide is called dry ice. (c)what is latent heat of vaporisation?	3
	Biology	
11	Name selectively permeable membrane of the cell. Why is it called so?	1
12	How are animal cells different from plant cells on the basis of size and number of vacuoles?	2
13	The skin of our fingers shrink after washing clothes. Why?	2
14	Identify and name the following cell structures: a)The undefined nuclear region of the prokaryotic cell. b) site of energy release insi the cell.	2
15	Read the following paragraph and answer the questions given below. Each living cell has the capacity to perform certain basic functions that are characteristic of all living forms. Each living cell has got certain specific components within it known as cell organelles. Each kind of cell organelle performs a special function. A cell is able to live and perform all its functions because of these organelles. These organelles together constitute the basic unit called the cell. (a) Name the cell organelle which is known as the powerhouse of the cell. (b) State the function of vacuole in the cell. (c) Differentiate between Rough ER and Smooth ER on the basis of their function in the cell.	3



OSDAV Public School, Kaithal

Periodic Test 2 (July,2024)

Class :IX

Subject : Science

Set- A

Time: 1hr 20 minutes

M.M. : 30

General Instructions:-

All questions are compulsory.

Q.No	Physics/ Chemistry	Marks
1	Name the quantity which is measured by the area occupied below the velocity time graph.	1
2	When will you say body is in uniform acceleration?	1
3	Boiling is called bulk phenomenon. Explain.	1
4	Gases are highly compressible explain with the help of activity.	2
5	Draw a diagraph of sublimation of camphor.	2
6	A racing car has a uniform acceleration of 5 ms^{-2} .what distance will it cover in 5 sec after start?	2
7	How does the water kept in the earthen pot become cool during summer?	2
8	Distinguish between uniform motion and uniform circular motion.(any three)	3
9	A student while driving to school computes the average speed for his trip to be 40 kmh^{-1} .on his return trip along the same route the average speed is 60 kmh^{-1} .What is the average speed for students trip?	3
10	On increasing the temperature of solids,the kinetic energy of the particles increases.due to the increase in the kinetic energy the particle start vibrating with greater speed.Now answer the following questions: (a)the temperature remain same during the change of state,so where does the heat energy go? (b)suggest a method to liquefy atmospheric gases. (c)what produces more severe burnboiling water or steam?	3
	Biology	
11	Name powerhouse of the cell. Why is it called so?	1
12	How are RER different from SER on the basis of surface and function?	2
13	It is advisable to sprinkle salt on salad just before eating . Why?	2
14	Mention any two organelles which have their own DNA and Ribosomes.	2
15	Read the following paragraph and answer the questions given below. Nucleus is the largest cell organelle. It is the controlling center of all cellular activities. It is bounded by a double membrane which is porous. Bounded by the nuclear envelope is the nucleoplasm This nuclear envelope contains nucleolus and chromatin fibers. (a) What are chromosomes made up of? (b) Write down the full form of DNA (c) Name the functional segments of DNA.	3



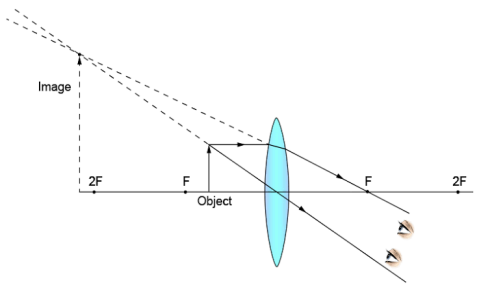
OSDAV Public School, Kaithal

2nd Unit Test (July,2024)

Set : B

Class : X

Subject : Science

Q.No	Questions (Physics / Chemistry)	Marks
1	A Mg and B - MgO	1
2	$m = -v/u$ $-3 = -v/-25$ $v = -75\text{cm}$	1
3	$\text{BaCl}_2 + \text{Na}_2\text{SO}_4 \rightarrow \text{BaSO}_4 + \text{NaCl}$	1
4	a) Shaving mirror - concave to see the large image of face b) Rear view mirror in vehicles - convex to get erect and diminished image.	2
5	absolute refractive index = speed of light in vacuum / speed of light in medium . Speed of light in diamond is 1 / 2.42 times speed of light in air.	2
6	Convex lens. 	2
7	Colour changes are observed because more reactive iron displaces less reactive copper from copper sulphate solution. $\text{Fe} + \text{CuSO}_4 \rightarrow \text{FeSO}_4 + \text{Cu}$	2
8	a) 1D is power of lens whose focal length is 1m. b) $P = 1/f$ $P = 100/30$ $= 3.3\text{D}$ Converging $P = -100/10$ $= -10\text{D}$ Diverging	3
9	a) colour changes from white to yellow. Brown fumes are evolved b) Thermal decomposition reaction c) $2\text{Pb}(\text{NO}_3)_2 + \text{heat} \rightarrow 2\text{PbO} + 4\text{NO}_2 + \text{O}_2$	3
10	a) Reddish brown b) Painting, Oiling , Galvanisation c) substance oxidised - H ₂ oxidizing agent - CuO	3
Biology		
11	Stomatal pores get opened by guard cells. Water flows in guard cells. They swell up and stomatal pores get opened.	1
12	a) Xylem Phloem	2

	1.Transport water. 2.Does not requires energy b) Lipase 1.digest fats. 2.Release by pancreas in small intestine	1.Transport food 2.Requires energy salivary amylase 1.Digest carbohydrates 2.release by salivary gland	
13	Herbivores eat grass which contains cellulose.This is difficult to digest. Where as carnivorous eat flesh which is easy to digest.		2
14	a)Aorta. - Oxygenated blood from left ventricle to all body parts b) Pulmonary artery - Deoxygenated blood from right ventricle to lungs.		2
15	a)alveoli provide large surface area for exchange of gases b) So that c) Rings of cartilage are present in trachea.Give reason.		3



OSDAV Public School, Kaithal

2nd Unit Test (July,2024)

Set : A

Class : X

Subject : Science

Q.No	Questions (Physics / Chemistry)	Mark s
1	Law of conservation of mass. Mass can neither be created nor be destroyed in a chemical reaction.	1
2	$m = -v/u$ $-2 = -v/-15$ i.e. $v = 30\text{cm}$.	1
3	$\text{BaCl}_2 + \text{Na}_2\text{SO}_4 \rightarrow \text{BaSO}_4 + \text{NaCl}$	1
4	a) concave mirror to get powerful parallel beam of light b) convex mirror as it gives virtual, erect and diminished image of vehicles. Hence cover wider field of view.	2
5		2
6	<p>Concave lens</p> <p>Object between infinity and Optical Center</p>	2
7	<p>Because carbohydrates after digestion produce glucose in body. This glucose reacts with oxygen to release energy.</p> $\text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2 \rightarrow 6\text{CO}_2 + 6\text{H}_2\text{O} + \text{Energy}$	2
8	<p>a) abilities of lens to converge or diverge the light rays. Units - Dioptre</p> <p>b) $P = 1/f$ $P = 100/40$ $= 2.5\text{D}$ Nature - converging</p> <p>$P = -100/20$ $= -5\text{D}$ Nature - Diverging</p>	3
9	<p>a) pale green colour changes to reddish brown</p> <p>Suffocating, colourless gases are evolved.</p>	3

	b) Thermal decomposition reaction. c) $2\text{FeSO}_4 + \text{heat} \rightarrow \text{Fe}_2\text{O}_3 + \text{SO}_2 + \text{SO}_3$	
10	a) To remove the layer of magnesium oxide. b) i) of flame - White ii) of ash formed - White c) $2\text{Mg} + \text{O}_2 \rightarrow 2\text{MgO}$	3
	Biology	
11	Stomatal pores get closed by guard cells. Water comes out from guard cells, they shrink and hence stomatal pores closed.	1
12	1. Helps in emulsification of fats. 2. Makes food medium alkaline to activate pancreatic enzymes.	2
13	a) Transport of water transport of food 1. Occurs through xylem 1. Occurs through Phloem 2. Unidirectional. 2. Bidirectional b) Pepsin Trypsin 1. Activates in acidic medium. 1. Activates in alkaline medium 2. Works in stomach. 2. Works in small intestine	2
14	a) Vena Cava - deoxygenated blood from all body parts to right atrium b) Pulmonary vein - oxygenated blood from lungs to left atrium.	2
15	a) Because amount of oxygen dissolved in water is less than air. b) To prevent the collapsing of trachea even when there is no air in it. c) Plants are stationary and have large number of dead cells.	3