



**O.S.D.A.V. Public School, Kaithal**  
**PT1 Exam 2025**  
**Subject: Science**  
**Class : IX**

**Time:- 1 hour 10 minutes**

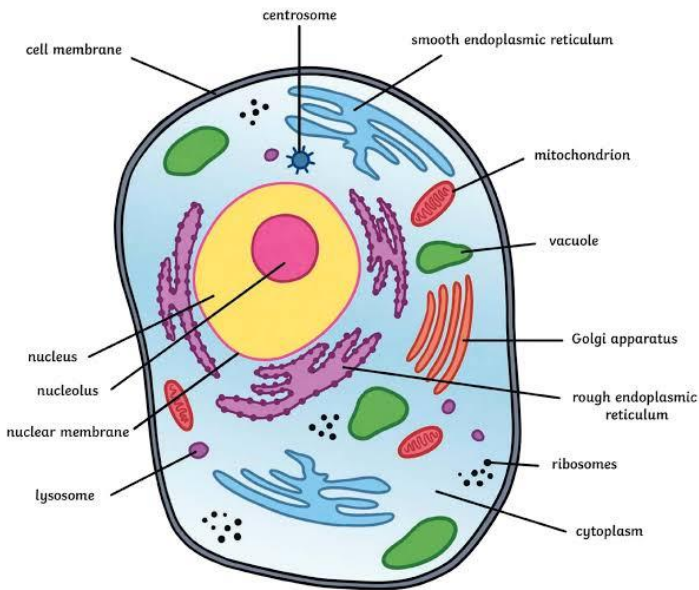
**M.M.:- 30**

**Set- A**

**General Instructions:**

**I.** All questions are compulsory.

Q.No.	Section A	Marks
1.	c) Evaporation	1
2.	b) Cotton	1
3.	c) Displacement	1
4	Sponge has minute holes in which air gets trapped. When we apply force, air comes out & changes it's shape but when the force is removed, it regains it's shape. Therefore, sponge is a solid, yet we are able to compress it.	2
5	<b>Distance:</b> 1) Total path covered by the object. 2) It is a scalar quantity. <b>Displacement:</b> 1) Shortest distance between initial and final point. 2) It is a vector quantity.	2
6	a) The amount of heat energy required to convert 1kg of liquid into gas at atmospheric pressure at it's boiling point. b) It is easier to sip from a saucer rather than a cup because saucer has more surface area, therefore, more evaporation and evaporation causes cooling of the liquid present in the saucer.	3
7	a) The process of conversion of liquid into gas below it's boiling point. b) Clothes dry faster on a sunny day because on sunny day, temperature is more therefore evaporation is more but on a rainy day, humidity is more therefore evaporation is less.	3
8	a) When an object covers unequal distance in equal intervals of time. b) When distance and displacement would be equal. c) Yes, when initial and final points are same.	3
9	a) Rate of change of velocity. b) $36\text{km/hr} = 10\text{m/s}$ $54\text{km/hr} = 15\text{m/s}$ $a = (v-u)/t = (15-10)/10 = 0.5\text{m/s}$ c) <b>Scalar Quantity:</b> It has only magnitude. <b>Vector Quantity:</b> It had both magnitude and direction.	4
	Biology	
10	b) Nucleus	1

11	<p>a)The process of formation of cell membrane from lipids and proteins taken from SER and RER.</p> <p>b)During adverse conditions, lysosomes release enzymes to digest their own cell, that's why they are called suicidal bags.</p>	2
12	<p><b>Prokaryotic Cell:</b> a) Only one chromosome is present</p> <p>b) No well defined nuclear region.</p> <p><b>Eukaryotic Cell:</b> a) Many chromosomes are present.</p> <p>b) Well defined nuclear region is present.</p>	2
13	<p>a)<b>Osmosis:</b> a) Movement of particles from high concentration to low concentration through semi permeable membrane.</p> <p>b) It only occurs in liquids.</p> <p><b>Diffusion:</b> a) Movement of particles from high concentration to low concentration without semi permeable membrane.</p> <p>b) It occurs in solids, liquids and gases.</p> <p>b) lipids and proteins</p>	2
14	 <p>a)</p> <p>b)It separates cell contents from outer environment.</p>	3



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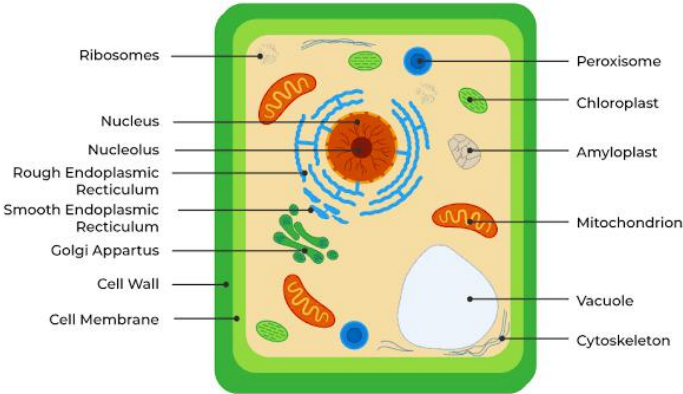
**M.M.:- 30**

**Set. B**

**General Instructions:**

**I.** All questions are compulsory

Q.No.	Section A	Marks
1.	b)Atmospheric Pressure	1
2.	c) Gases	1
3.	c)m/s <sup>2</sup>	1
4	Gases have weak force of attraction, particles of gas move here & there, So, hit each other and the walls of the container, this force per unit area appears as pressure on the walls of the container	2
5	<b>Speed:</b> 1)It's distance per unit time. 2) It's a scalar quantity. <b>Velocity:</b> 1)It's displacement per unit time. 2)It's vector quantity.	2
6	a)It is defined as the energy required to convert 1kg of solid substance into liquid at it's melting point at atmospheric pressure. b)We wear cotton clothes during summers because they are good absorber of sweat. When sweat comes in contact with surrounding it takes heat from our body and surroundings to evaporate. Hence, causing cooling.	
7	a) <b>Boiling:</b> 1) Conversion of liquid state into gaseous state at a fixed temperature I.e. Boiling point. 2) It is a bulk phenomenon. <b>Evaporation:</b> 1) Conversion of liquid state into gaseous state below it's boiling point. 2) It is a surface phenomenon. b)Earthen pot has minute holes on it's surface in which water droplets get stored, these water droplets take heat energy from water inside the earthen pot to evaporate hence causes the inside water to get cool.	
8	a) It is defined as when object covers equal distance in equal interval of time. b) Displacement is a vector quantity. c) When the object moves on a straight line path.	3
9	a)Rate of change of velocity. b) 36km/hr = 10m/s    54km/hr=15m/s a=(v-u)/ t= (15-10)/10 =0.5m/s c) <b>Scalar Quantity:</b> It has only magnitude. <b>Vector Quantity:</b> It had both magnitude and direction.	4

	Biology	
10	c) RER	1
11	<p>a) When we put a living plant cell in hypertonic solution, its content will shrink away from the cell wall. This process is called plasmolysis.</p> <p>b) Plasma membrane is called selectively permeable membrane because it only allows selective things to pass through it.</p>	2
	<p><b>Plant Cell:</b> a) cell wall is present.                      b) Cell size is larger.</p> <p><b>Animal Cell:</b> a) Cell wall is absent.                      b) Cell size is smaller.</p>	2
13	<p>a) <b>Osmosis:</b> a) Movement of particles from high concentration to low concentration through semi permeable membrane.</p> <p>b) It only occurs in liquids.</p> <p><b>Diffusion:</b> a) Movement of particles from high concentration to low concentration without semi permeable membrane.</p> <p>b) It occurs in solids, liquids and gases.</p> <p>b) Lysosomes are called suicidal bags because in adverse conditions, they burst to release digestive enzyme and digest their own cell.</p>	2
14	<p style="text-align: center;"><b>Plant Cell</b> <span style="float: right;">æ</span></p>  <p>a)</p> <p>b) <b>Prokaryotic Cell:</b> a) Only one chromosome is present</p> <p>b) No well defined nuclear region.</p> <p><b>Eukaryotic Cell:</b> a) Many chromosomes are present.</p> <p>b) Well defined nuclear region is present.</p>	3