



S.NO	MCQ
1	The slope of velocity – time graph represents. a)Speed b) Acceleration c) Displacement d) Distance
2	A vector quantity has a)Direction b) Magnitude c) Both magnitude and direction d) None of these
3	A gun after firing recoils due to a) Conservation of energy b) Backward thrust of gases c) Newton's third law of motion d)Newton's second law of motion
4	Unit of density is a) g/cm^3 b) cm c) g d) g/cm^2
5	A diver is able to cut through water in a swimming pool. The property shown by the matter is (a) The particles of matter are very small (b) The particles of matter have space between them (c) The particles are in solid state (d) The particles are running here and there, have no space between them
6	During summer, water kept in an earthen pot becomes cool because of the phenomenon of (a) Diffusion (c)osmosis (b) Transpiration (d)evaporation
7	Tincture of iodine has antiseptic properties. This solution is made by dissolving (a)iodine in benzene (c)iodine in ether (b)iodine in water (d)iodine in alcohol
8	Which of the following are homogeneous mixtures in nature? (i)copper sulphate in water (ii)soap solution (iii)milk of magnesia (iv)sugar syrup (a)(i) and (iv) (b)(i) and (iii) (c)(ii) and (iii) (d)(iii) and (iv)
9	The cell organelle involved in forming complex sugar from simple sugar are a. Endoplasmic reticulum b. Ribosomes c. Plastids d. Golgi apparatus
10	In which the reproductive organs are hidden? a. Cryptogamae b. Phanerogamae c. Gymnosperms d. angiosperms

VERY SHORT ANSWER	
11	Write one main difference between cheek cells and onion peel cells.
12	Name the stains used to prepare the slides of Plant cell and Animal cell
13	State any two functions of vacuole.
14	<p>The questions below consist of statement of an Assertion and Reason. Use the following key to choose appropriate answer:</p> <p>(A) If both assertion and reason are CORRECT and reason is the CORRECT explanation of the assertion. (B) If both assertion and reason are CORRECT, but reason is NOT THE CORRECT explanation of the assertion. (C) If assertion is CORRECT, but reason is INCORRECT. (D) If assertion is INCORRECT, but reason is CORRECT (E) If both assertion and reason are INCORRECT</p> <p>Assertion: Angiosperms and Gymnosperms are flowering plants. Reason: Both forms seeds</p>
15	The volume of 50 g of a substance is 20 cm ³ . Find its density.
16	Define 1 newton force
17	<p>The following questions consist of two statements – Assertion (A) and Reason (R). Answer the question selecting the appropriate option given below.</p> <p>a) Both A and R are true and R is the correct explanation of A b) Both A and R are true but R is not the correct explanation of A. c) A is true but R is false. d) A is false but R is true.</p> <p>Assertion: Force exerted by the ground on the man makes him move forward. Reason: Force exerted by the ground is a reaction force</p>
18	What happens to the melting point of ice when salt is added to it?
19	Define latent heat of vaporization.
20	We can get the smell of perfume sitting several meters away. Give reason.
SECTION-B	
21	<p>a) List two differences between speed and velocity. b) How is the average velocity of an object calculated when c) i) Its velocity changes at uniform rate ii) Its velocity changes at a non -uniform rate.</p> <p style="text-align: center;">OR</p> <p>a)When will you say a body is in i) uniform acceleration ii) Non-uniform acceleration? b) Give examples for each case</p>
22	<p>a) State Newton’s first law of motion. b) Why do you fall in the forward direction when a moving bus brakes to a stop? c)What is the momentum of an object of mass 2m and velocity 2v?</p>
23	A body starts from rest and rolls down a hill with a constant acceleration. If it travels 400m in 20 seconds, calculate the force acting on the body if its mass is 10Kg. Also calculate its final velocity.

	<p style="text-align: center;">OR</p> <p>A motorcar of mass 1200kg is moving along a straight line with a uniform velocity of 90km/h. Its velocity is slowed down to 18km/h in 4 s by an unbalanced external force. Calculate the acceleration and change in momentum. Also calculate the magnitude of the force required.</p>
24	<p>Arrange solids, liquids and gases in increasing order of the following properties of matter (i)rigidity (ii)diffusion (iii)compressibility</p> <p style="text-align: center;">OR</p> <p>(a)What is sublimation? (b)Draw a labelled diagram showing sublimation of ammonium chloride.</p>
25	List three differences between properties of metals and non-metals.
26	<p>(a)A solution contains 5ml of alcohol mixed with 75 ml of water. Calculate the concentration of solution? (b)What are solute and solvent in aerated drink?</p> <p style="text-align: center;">OR</p> <p>You are provided with soda water, milk and muddy water. How can you differentiate between them in terms of (i)Nature (homogeneous or heterogeneous) (ii) Filtration (iii)Tyndall effect.</p>
27	<p>Write two similarities and one dissimilarity between Mitochondria Plastids.</p> <p style="text-align: center;">OR</p> <p>How are the following related to each other? 1. Chromatin network and Chromosomes. 2. Chloroplast and Chlorophyll. 3. Genes and DNA</p>
28	<p>1. Define Evolution 2. Mention the three criteria's for Five Kingdom classification 3. Write any one characteristic of Kingdom Protista.</p>
29	<p>1. Usually shrubs and herbs grow in open places and are exposed to forceful winds but they do not break. Why? 2. What do you mean by Differentiation?</p>
30	<p>One day Disha who is Studying in class IX went to mother dairy's vegetable shop where she found some umbrella like structures being sold. She could immediately identify them.</p> <p>a. What is that structure? b. To which Kingdom does that belong? c. Write two characteristic features of organisms belong to this Kingdom. d. Name the group of Plants which reproduces through spores.</p>
	SECTION-C
31	<p>a) Derive : $v^2 - u^2 = 2as$ b) A train is travelling at a speed of 90 km/h .Brakes are applied so as to produce an acceleration of $- 0.5 \text{ m/s}^2$. Find how far the train will go before it is brought to rest.</p> <p style="text-align: center;">OR</p> <p>a)Derive : $v = u + at$ b)A train running at 108 km/h is brought to a halt in 2 minutes. Calculate the retardation</p>

	produced by the application of brakes. Calculate the distance the train travels before stopping.
32	<p>a) State law of conservation of momentum.</p> <p>b) Derive the mathematical formula of conservation of momentum.</p>
33	<p>(a) Identify the factors responsible for changed rate of evaporation for the following situations:</p> <p>(i) Wet clothes dry faster on spreading them out</p> <p>(ii) During summer, sitting under a fan makes us more comfortable</p> <p>(iii) We sweat a lot in hot and humid weather</p> <p>(b) Difference between boiling and evaporation (any two)</p> <p style="text-align: center;">OR</p> <p>(a) Carbon dioxide gas was taken in an enclosed cylinder and compressed by applying pressure :</p> <p>(i) Which state of matter will we obtain after completion of the process?</p> <p>(ii) Name and define this process.</p> <p>(iii) What is the common name of the product obtained in the above process?</p> <p>(b) Write in brief, an activity to show the particulate nature of matter.</p>
34	<p>(a) Name the technique to separate</p> <p>(i) butter from curd</p> <p>(ii) camphor from salt</p> <p>(iii) oil from water</p> <p>(b) What is saturated solution? What happens when a saturated solution is heated?</p>
35	<p>1. Draw a well labeled diagram of a prokaryotic cell.</p> <p>2. State two differences between prokaryotic and eukaryotic cell</p> <p>3. Define the term “membrane biogenesis”.</p> <p style="text-align: center;">OR</p> <p>Two beakers A and B contain plain water and concentrated sugar solution respectively. Equal number of dry raisins are kept in them for a few hours and then taken out.</p> <p>a. Explain the reason for the difference in the physical appearance of raisins which were taken out from the two beakers.</p> <p>On the basis of above observation, name the solutions in which raisins are kept.</p>
36	<p>Draw a well labeled diagram of a neuron</p> <p>How are voluntary muscles different from involuntary muscles (Two differences)</p>
	End of the Question Paper