

## PANCHSHEEL PUBLIC SCHOOL

10+2 Senior Secondary School (Affiliated & Recognized by CBSE)

Jaitpur, Badarpur, New Delhi-44

Mid-	erm	Examina	ation-202	22-23

Time:	Subject:	Class:	M. Marks:
Name	Roll No	Section	Date:
CHEMISTRY			

1. The size of particles of true solutions is.

(a) < 1 nm. (b) Between 1 nm to 100 nm

(c) > 100 nm. (d) > 1000 nm

2. During summer, water kept in earthen pot becomes cool due to phenomenon of(1)

(a) Diffusion (b) Transpiration (c) Distillation (d) Evaporation

3. Read the statements carefully and choose the correct alternative from the following:(1)

(1)

Assertion: In pressure cooker temperature of water becomes more than 100°C.

Reason: Boiling point is directly proportional to pressure acting on liquid.

(a) Both the Assertion and the Reason are correct and the Reason is the correct explanation of the Assertion.

(b) The Assertion and the Reason are correct but the Reason is not the correct explanation of the Assertion.

(c) Assertion is true but the Reason is false.

(d) The statement of the Assertion is false but the Reason is true.

4. When a solid melts, its temperature remains constant, so where does the heat energy go? What is the name given to this heat?(2)

5. Give reasons for the following:(3)

(a) Camphor disappears if kept in open air for a few days.

- (b) Wet clothes do not dry easily on a rainy days.
- (c) We sweat more on humid days.

6. i) Convert the following thermometer readings into kelvin -100 °C, 200 °C.

ii) Write any three diffrence between mixture and compound. (3)

7. Read the given passage and answer the questionsthat follow based on the passage and related studied concepts. (4)

A pure substance consist of single type of particles. Mixture consist of more than one

kind of pure form of matter. Mixtures can be separated by physical methods but pure substances especially compounds cannot be separated into chemical constituents by physical methods. Pure substance has same composition throughout. Soil and soft drinks are mixtures. Mixtures can be separated by various methods depending upon nature of substance present in it. Solution is a homogeneous mixture.

(a) Name the process by which pure NaCl can be obtained from salt solution.

(b) What are alloys-compounds or mixtures?

(c) What is size of particles in solution?

(d) What is solute and solvent in cold drinks?

PHYSICS

1. Area below -t graph is a measure of (1)

(a) Acceleration (b) Displacement (c) Angular speed (d) Angular acceleration.

2. A passenger in a moving train tosses a coin which falls behind him. It means that motion of the train is (1)

(a) accelerated. (b) uniform. (c) retarded. (d) along circular tracks.

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Assertion: Mass remains constant at every point in the universe.

Reason: Mass of a body can be zero.

4. Give one example each of inertia of rest a zero and inertia of motion observed in daily life. (2)

5. A ball is dropped from a tower of height 5 m. With what velocity does it strike the ground? (2)

6. Why do you fall in the forward direction when a moving bus brakes to a stop and fall backward when it accelerates from rest? (3)

7. (a)As the altitude increases, how do the weight and mass of the body vary?

(b) A stone resting on the ground has a gravitational force of 20 N acting on it. What is the weight and mass of the stone? (Take g 10 ms-2). (3)

8. (a) State the law that provides the formula for measuring force and the law which provides the definition of force.

(b) Velocity-time graph of a 50 g marble rolling on floor is given below. Find-



(i) time in which it stops. (ii) negative acceleration produced in it. (iii) positive force acting on the marble. (5) 9. The following table shows the weights (W) of objects of equal volume immersed in water (having density = 1000 kg), observe the table and answer the questions that follow. [Given g = 9.8m. (4)

Ohject	Weight (N) (W)	
А	10	
В	15	
С	20	
D	25	

a) On which object is the maximum upthrust exerted by water?

(i) A (ii) B. (iii) C and (iv) Same on all

(b) State the principle based on which the upthrust acting on an object is obtained.

(i) Archimedes' principle (ii) Principle of floatation (iii) Principle of buoyancy (iv) Upthrust

(c) Give two applications of this principle.

- (i) hydrometer and lactometer
- (ii) submarine making and digital clocks
- (iii) ship desuming and chromatography
- (iv) All of these
- (d) Which of the following is true?
- (i) Objects having density more than water, float in it
- (ii) Objects having density less than water, sink in it.
- (iii) Objects having density less than water, float on it.

(iv) Objects having density equal to water, float on it

## BIOLOGY

- 1. The cell organelles (other than the nucleus) which contain DNA are (1)
- (a) plastids and lysosomes (b) r (c) Golgi apparatus and lysosomes. (d) p
- (b) mitochondria and Golgi apparatus(d) plastids and mitochondria
- 2. Fats are stored in human body as (1)

(a) cuboidal epithelium.

(b) adipose tissue

- (c) bones.
- (d) cartilage

3. Glands in our body are formed by (1)

(a) connective tissue (b) smooth muscles(c) epithelial tissue (d) adipose tissue

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Assertion: Epithelial tissues are the protective tissues of animal body.

Reason: Squamous epithelium are the thickest amongst all the epithelial tissues.

5. Grass looks green, papaya appears yellow. Which cell organelle is responsible for this? (2)

6. Distinguish between hypotonic solution, isotonic solution and hypertonic solution. (2)

7. Draw a diagrammatic labelled sketch of stem tip to show the location of meristematic tissue. (3)

8. Based upon cell shape, cell wall and intercellular spaces, prepare a comparative parenchyma, collenchyma and sclerenchyma. (3)

Draw diagram of collenchyma and sclerenchyma.

9. Meristematic tissue take up a specific role and lose the ability to divide. As a result, they form a permanent tissue. This process of taking up a permanent shape, size, and a function is called differentiation. Differentiation leads to the development of various types of permanent tissues. (4)

(1) Tissue made of only one type of cell is termed as \_\_\_\_\_

- (a) Simple permanent tissue
- (b) Complex permanent tissue
- (c) Simple Meristematic tissue
- (d) Complex Meristematic tissue
- (2) Xylem and phloem are examples of
- (a) Meristematic tissue
- (b) Simple tissue
- (c) Protective tissue
- (d) Complex tissue
- (3) In aquatic plants, which type of parenchymatissue is found?
- (a) Aerenchyma
- (b) Chlorenchyma
- (c) Sclerenchyma
- (d) Parenchyma
- (4) What is mean by Differentiation?