

CBSE MIXED TEST PAPER-03**CLASS - 9 SCIENCE****(2nd Terminal Unit Test)****General Instructions:-**

- (i) All questions are compulsory.
- (ii) Marks allotted to each question are indicated against it.

Physics (Section A)

1. Give an example of situation: one object with a constant acceleration but with a zero velocity. (1)
2. Define Inertia (1)
3. A motor boat starting from rest on a lake accelerates in a straight line at a constant rate of 3m/s^2 for 8s. How far does the boat travel during this time? (2)
4. Differentiate between distance and displacement. (3)
5. Drive the equation for Newton's second law of motion. (3)
6. A stone of 1 kg is thrown with a velocity of 20 m/s across the frozen surface of a lake comes to rest after travelling a distance of 50m. What is the force of friction between the stone and the ice? (3)
7. (a) Plot a distance – time graph from the readings given below: (5)

X	Time	Sec	0	1	2	4	5	7
Y	Distance	M	0	7	14	28	35	49

- (b) What can you say about the type of motion of the body?
- (c) What will be the distance covered in 8 seconds?

8. A bullet of mass 10 g travelling horizontally with a velocity of 150 m/s strikes a stationary wooden block and comes to rest in 0.03 seconds. Calculate the distance of penetration of the

bullet into the block. Also calculate the magnitude of the force exerted by the wooden block on the bullet.(5)

Section-B (chemistry)

Answer the following questions in one sentence:

1. Name the S.I. unit of temperature. (1)
2. Name the solvent like component of a colloid. (1)
3. Name the change of state directly from solid to gas without changing into liquid state. (1)
4. Name the process of separation of components of air.

Answer the following questions in 2 or 3 sentences each. (4)

1. Differentiate between the following:
 - a. Latent heat of fusion & vaporization.
 - b. Solution & Colloids.
2. Give two examples each for the following: (4)
 - a. Gel b. Sol
 - b. Emulsion d. Foam
3. How does the water kept in an earthen pot become cool during summer? (3)
4. Mention any two applications of the following methods of separation. (3)
 - a. Chromatography
 - b. Crystallization
 - c. Centrifugation
5. Give reason for the following (2)
 - a. On a hot sunny day, people sprinkle water on the open ground.
 - b. Water droplets are seen on the outer surface of a glass containing ice cold water.

Section C (Biology)

1. Write the name of any two diseases that are transmitted by sexual contact. (1)
2. Where do lipids and proteins constituting the cell membrane gets synthesized? (1)
3. Name the following: (3)
 - a. Protein factory of the cell.
 - b. Tissue that forms inner lining of our mouth.
 - c. Cell organelle known as cellular house keepers.
 - d. These cell contain chemical suberin.
4. Differentiate between Xylem and Phloem. (2)
5. State any two conditions for good health. Mention the causal agents for following diseases:- (2)
 - a. Elephantiasis
 - b. Sleeping sickness
6. Write down one difference between cell wall and plasma membrane. Draw to show the structure of plasma membrane . Also mention one function of cell membrane. (2)
7. What would happen to the life of a cell, if there was no Golgi apparatus? (3)
8. What are acute and chronic diseases? Which one of the two is more harmful and why? Give an example in support of your answer. (3)
9. Draw a sketch to show the location of meristematic tissue in a plant body and write the functions of each one of them.(3)
10. In which tissue would you find Haversian canal and chondrocyte? Show the classification of connective tissue by the outline diagram. Mention any two functions of connective tissue. (5)