

KENDRIYA VIDYALAYA
PERIODIC TEST:1 – 2024-25
CLASS – IX
SUBJECT: SCIENCE (086)

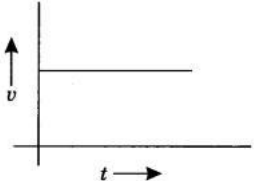
MAX. MARKS: 40

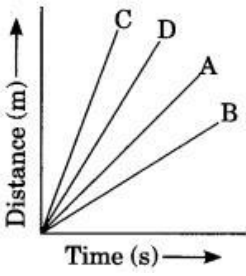
TIME: 90 Min.

General Instructions:

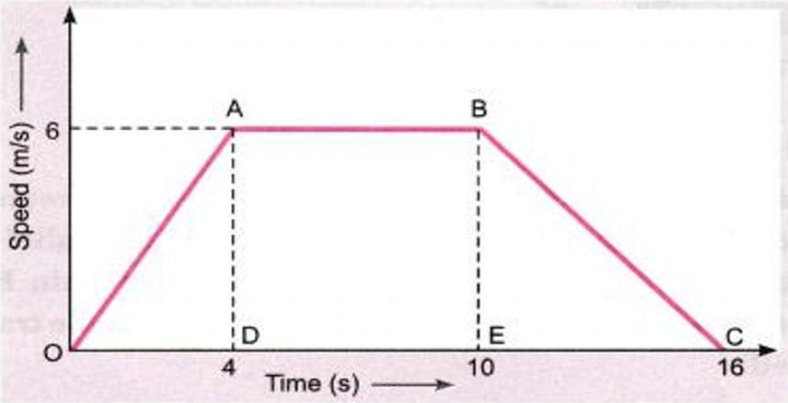
- All questions are compulsory.
- The question paper has four sections and 23 questions. All questions are compulsory.
- **Section – A** has 15 questions of 1 marks each; **Section – B** has 3 questions of 2 marks each; **Section – C** has 3 questions of 3 marks each and **Section – D** has 2 questions of 5 marks each.
- Internal choices have been provided in some questions. A student has to attempt only one of the alternatives in such questions.

SECTION A

1)	In a water-sugar solution (a) water is solute and sugar is solvent. (b) water is solvent and sugar is solute. (c) water is solute and water is also solvent. (d) none of these	1
2)	Which of the following are physical changes? (i) Melting of iron metal (ii) Rusting of iron (iii) Bending of an iron rod (iv) Drawing a wire of iron metal (a) (i), (ii) and (iii) (b) (i), (ii) and (iv) (c) (i), (iii) and (iv) (d) (ii), (iii) and (iv)	1
3)	The numerical ratio of displacement to distance for a moving object is (a) always less than 1 (b) always equal to 1 (c) always more than 1 (d) equal or less than 1	1
4)	When a beam of light is passed through a colloidal solution, it gets (a) reflected (b) absorbed (c) scattered. (d) refracted	1
5)	From the given $u - t$ graph, it can be inferred that the object is  (a) in uniform motion (b) at rest (c) in non-uniform motion (d) moving with uniform acceleration	1
6)	Identify the false statement. (a) Colloids are homogeneous (b) Colloids show Tyndall effect (c) Colloids show Brownian movement (d) The size of colloidal particles ranges between 1-100 nm.	1

7)	Four cars A, B, C and D are moving on a levelled road. Their distance versus time graphs are shown in the adjacent figure. Choose the correct statement.  (a) Car A is faster than car D. (b) Car B is the slowest. (c) Car D is faster than car C. (d) Car C is the slowest.	1
8)	Which of the following is a homogeneous mixture? (a) Solution of sugar in water (b) Chalk powder in water (c) Kerosene oil in water (d) None of these	1
9)	In which of the following cases of motions, the distance moved and the magnitude of displacement are equal? (a) If the car is moving on a straight road (b) If the car is moving in Circular path (c) The pendulum is moving to and fro (d) The earth is revolving around the sun.	1
10)	Mercury and bromine are both (a) liquid at room temperature (b) solid at room temperature (c) gases at room temperature (d) both (a) and (b)	1
11)	A body thrown vertically upwards reaches a maximum height h. It then returns to ground. The distance and the displacement travelled by the body respectively are (a) $2h$, zero (b) h, zero (c) zero, $2h$ (d) zero, h	1
(CCT QUESTIONS: Q.12 to 15)		
Leeuwenhoek discovered the free-living cells in pond water for the first time. Robert Brown discovered the nucleus in the cell. A single cell may constitute a whole organism as in Amoeba. These organisms are called unicellular organisms. On the other hand, many cells group together in a single body and assume different functions in it to form various body parts in multicellular organisms. The shape and size of cells are related to the specific function they perform. Each living cell has the capacity to perform certain basic functions that are characteristic of all living forms. Each kind of cell organelle performs a special function, such as making new material in the cell. clearing up the waste material from the cell and so on.		
12)	Cells were first discovered by: (a) Robert Hooke (b) Leeuwenhoek (c) Schleiden (d) Virchow	1
13)	Which of the following is a unicellular organism? (a) Fungi (b) Plants (c) Chlamydomonas (d) Animal	1

14)	Who suggested that all cells arise from pre-existing cells? (a) Robert Hooke. (b) Leeuwenhoek (c) Schleiden. (d) Virchow	1
15)	Which of the following is an incorrect statement? I. Each living cell has the capacity to perform certain basic functions. II. There is a division of labour in multicellular organisms. III. Each kind of cell organelle performs a special function. IV. All activities inside the cell do not interact with the environment. a. (I) and (II) b. (II) and (III) c. (III) and (IV) d. Only (IV)	1
SECTION B		
16)	A solution contains 60 g of sugar in 480 g of water. Calculate the concentration of solution in terms of mass by mass percentage of the solution.	2
17)	Differentiate between (i) The functions of RER and SER (ii) Plasma membrane and cell wall.	2
18)	A body travels in a semi-circular path of radius 10 m starting its motion from point 'A' to point 'B'. Calculate the distance and displacement.	2
SECTION C		
19)	Give any three points of difference between true solution, colloidal solution and suspension.	3
20)	Observe the given figure and answer the questions. (a) What has happened to cell A and B? Explain. (b) Identify the type of solution into which cells A and B are placed. (c) Name and explain the process that has taken place in cells A and B.  (A)  (B) Or Give the differences between prokaryotic cells and eukaryotic cells.	3
21)	(a) What is 'Tyndall effect'? (b) Give any two points of difference between Homogeneous and Heterogeneous mixture.	3
SECTION D		

22)	Draw the diagram to show animal cell and label the following parts : (a) Power house of the cell, (b) Suicidal bag, (c) Organelle which helps in protein synthesis, (d) Organelle which helps during cell division, (e) Organelle which helps in packaging, transporting of proteins and lipids.	(1X5=5)
23)	Study the speed time graph of a body given here and answer the following questions:(Answer any five of these)  (a) What type of motion is represented by OA? (b) What type of motion is represented by AB? (c) What type of motion is represented by BC? (d) Find out the acceleration of the body. (e) Calculate the retardation of the body. (f) Find out the distance travelled by the body from A to B. Or A car starts from rest and moves along the x-axis with constant acceleration 5 ms^{-2} for 8 seconds. If it then continues with constant velocity, what distance will the car cover in 12 seconds since it started from the rest?	(1X5=5)