



कुल मुद्रित पृष्ठों की संख्या /Total No. of printed pages: \_\_

## परमाणु ऊर्जा शिक्षण संस्था

**Atomic Energy Education Society**

### आवधिक परीक्षण / Periodic Test 1 (2025-26)

विद्यालय/School: **AECS** केंद्र/Centre: **Mysuru**

कक्षा/Class: **IX**

विषय/Subject: **Science**

अंक/Marks: **40**

दिया गया पाठ्यक्रम/ Portion covered: **Motion in A Straight Line / Matter in our Surroundings / Fundamental Unit of Life**

विद्यार्थी का नाम / Name of the student: \_\_\_\_\_

अनुक्रमांक/Roll No. \_\_\_\_\_

कक्षा/अनुभाग \_\_\_\_\_

दिनांक /Date: \_\_\_\_\_

#### Question Bank

##### **General Instructions:**

1. This question paper consists of two parts, A and B.
2. Section 'A' has 20 MCQs and each question carries 1 mark.
3. Section 'B-1' has 5 questions and each question carries 2 marks.
4. Section 'B-2' has 2 questions and each question carries 3 marks.
5. Section 'B-3' has 1 question and it carries 4 marks.
6. All the questions are compulsory.

#### **SECTION-A**

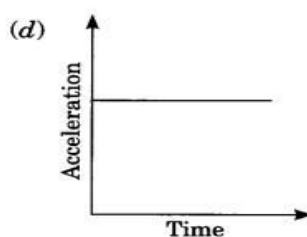
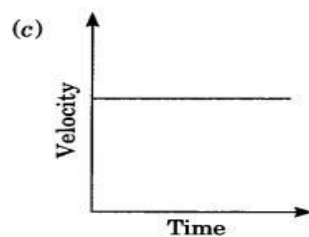
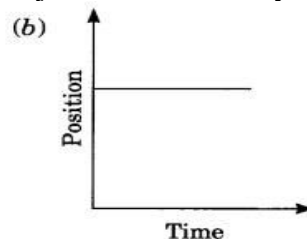
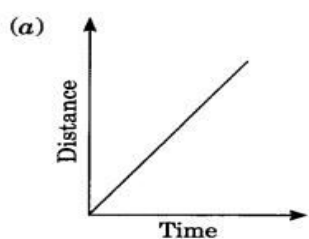
**(1x20= 20 MARKS)**

1. Particles of matter are continuously moving that is they possess \_\_\_\_\_ energy .  
(a) Chemical (b) Potential (c) Mechanical (d) Kinetic
2. Salt can be obtained from sea water by:  
(a)Filtration (b)Decantation (c)Evaporation (d)Sublimation
3. If the temperature of an object is 268 K, it will be equivalent to:  
(a) -5°C (b) +5°C (c) 368°C (d) -25°C
4. Camphor can be purified by:  
(a)Distillation (b)Filtration (c)Sedimentation (d)Sublimation
5. Which of the following processes does not involve a change in the physical state of matter?  
a) Boiling of water b) Melting of ice  
c) Burning of paper d) Sublimation of camphor
6. **Assertion** : A gas can easily be compressed by applying pressure.

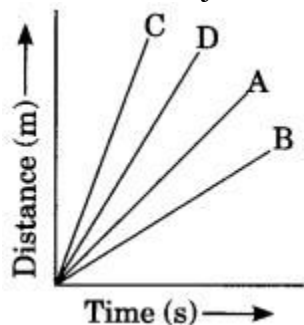
**Reason** : Since the inter-particle spaces between gases are very large, they can decrease by applying pressure.

- (a) Both assertion and reason are true, and reason is the correct explanation of assertion
- (b) Both assertion and reason are true, but reason is not the correct explanation of assertion.
- (c) Assertion is true, but reason is false.
- (d) Assertion is false, but reason is true.

7. A particle is moving in a circular path of radius  $r$ . The displacement after half a circle would be:
- Zero
  - $\pi r$
  - $2r$
  - $2\pi r$
8. Slope of a velocity-time graph gives
- the distance
  - the displacement
  - the acceleration
  - the speed
9. In which of the following cases of motions, the distance moved, and the magnitude of displacement are equal?
- If the car is moving on a straight road
  - If the car is moving in Circular path
  - The pendulum is moving to and fro
  - The earth is revolving around the sun.
10. If the displacement of an object is proportional to square of time, then the object moves with
- uniform velocity
  - uniform acceleration
  - increasing acceleration
  - decreasing acceleration
11. The numerical ratio of displacement to distance for a moving object is
- always less than 1
  - always equal to 1
  - always more than 1
  - equal or less than 1
12. Which one of the following graphs shows the object to be stationary?

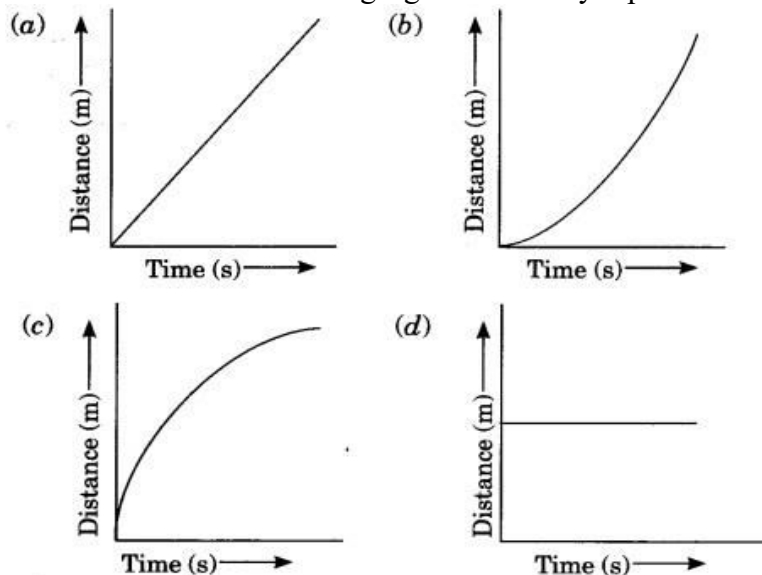


13. Four cars A, B, C and D are moving on a levelled road. Their distance versus time graphs are shown in the adjacent figure. Choose the correct statement.



- Car A is faster than car D.
- Car B is the slowest.
- Car D is faster than car C.
- Car C is the slowest.

14. Which of the following figures correctly represents uniform motion of a moving object?



15. Chromosomes are made up of

- (a) DNA (b) Protein (c) DNA and protein (d) RNA

16. Which cell organelle plays a crucial role in detoxifying many poisons and drugs in a cell?

- (a) Golgi apparatus (b) Lysosomes (c) Smooth endoplasmic reticulum (d) Vacuoles

17. .... is the Powerhouse of the cell

- (a) Nucleus (b) Ribosome (c) Mitochondria (d) Chloroplast

18. The term “cell” was coined by .....

- (a) Robert Hook (b) Schwann (c) Aristotle (d) Schleiden

19. Cell membrane is chemically composed of :

- (a) Glycolipid (b) Phospholipid (c) Glycoprotein (d) Fatty acid

20. .... Is called the energy currency of the cell ?

- (a) Oxygen (b) Carbon dioxide  
(c) ATP (d) FADH

### SECTION-B-1

Answer the following questions in one or two sentences.

(2x5=10 Marks)

21. How do substances like  $\text{CO}_2$  and  $\text{H}_2\text{O}$  move in and out of the cell? Discuss.
22. Which organelle is known as the suicide bag of the cell? Why?
23. Give reason: The temperature reading on thermometer is not increasing when water is boiling, till all the water become vapours.
24. What is sublimation. Mention two sublimable substances.
25. A particle is moving along a circle such that it completes one revolution in 40 seconds. In 3 minutes, 40 seconds, find the ratio of displacement and distance.

### SECTION-B-2

Answer the following questions in three to four sentences.

(3x2=6 Marks)

26. Draw velocity time graph for (i) uniform motion (ii) non uniform motion (iii) uniform acceleration.

27. What is evaporation? Explain the factors affecting rate of evaporation, with an example from daily life.

### SECTION-B-3

Answer the following questions in four to five sentences.

(4x1=4 Marks)

1. Explain the structure and function of Nucleus with the help of neat, labeled diagrams.