

PVG's  
**Muktangan English School & Jr. College,**  
**Pune –9**

**UNIT TEST – I (2024-2025)**  
**STANDARD - IX**

Subject: Science & Technology (Part I)

Marks: 10

Date: 10/08/2024

Time: 2.45 pm to 4.00 pm

Q1-A) Fill in the blanks and rewrite the statements. (2)

- 1) During collision total \_\_\_\_\_ remains constant.
- 2) Protons and neutrons are together called as \_\_\_\_\_.

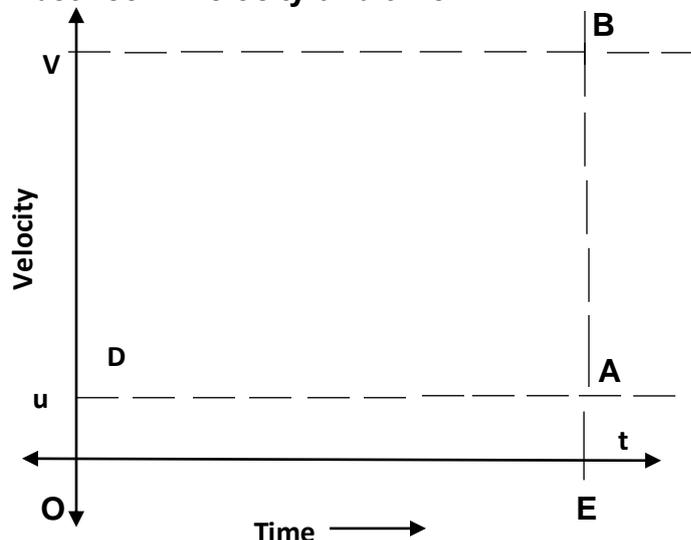
Q1-B) State Law of constant proportion. (1)

Q2-A) Answer the following (Any 2) (4)

- 1) Distinguish between distance and displacement by giving any two points of difference.
- 2) Give scientific reason : “The velocity of an object at rest is considered to be uniform”.
- 3) ‘An atom of potassium (K) is bigger than an atom of sodium (Na) Explain the given statement.

Q3 Answer any one of the following. (3)

- 1) Observe the given graph and hence derive an equation describing relation between “Velocity and time”.



2) 2 balls have masses of 0.05 kg and 0.1 kg and they are moving along the same line in the same direction with velocities 3m/s and 1.5 m/s respectively. They collide with each other and after collision, the first ball moves with a velocity of 2.5 m/s. Calculate the velocity of the other ball after collision.

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