



P.V.G.'s
Mukhtangan English School & Jr. College,
44, Vidyanagari, Parvati, Pune - 411009.

Terminal Examination (2025-26)
Standard - IX

Subject : Science & Technology (Part - I)

Marks : 40

Date : 13.10.2025

Time : 8.00 am to 10.00 am

Note :

1. All questions are compulsory.
2. Draw scientifically, technically correct labelled diagram wherever necessary.
3. Start writing each main question on a new page.
4. Figures to the right indicate full marks.
5. For each MCQ (i.e Q1 - (A)) evaluation would be done for the first attempt only.
6. For each MCQ correct answer must be written as shown in the Eg. i) A ii) B etc.

Q1. A. Choose the correct alternatives.

(5)

1. Deceleration is _____ acceleration.
A) Positive B) Negative
C) Zero D) More
2. The unit of power in SI system is _____.
A) Joule B) Erg
C) Newton D) Watt
3. If three resistors $5\ \Omega$, $6\ \Omega$ and $8\ \Omega$ are connected in series, the effective resistance in a circuit is _____.
A) $21\ \Omega$ B) $19\ \Omega$
C) $38\ \Omega$ D) $44\ \Omega$
4. The valency of an element with electronic configuration _____ is 2.
A) (2,5) B) (2,4)
C) (2,6) D) (2,7)

5. _____ is used to measure the potential difference between two points in the circuit.

A) Ammeter

B) Voltmeter

C) Plugkey

D) Electric Bell

B. Answer the following sub-questions

(5)

1. Name the following -

The minimum distance between the starting and finishing point - _____.

2. Define "Momentum".

3. Match the following.

1) Copper

a) Electric Bulb

2) Tungsten

b) Conductor

c) Coulomb

4. State whether the following statement is True or False. Rewrite the statement "Total energy of an isolated system is constant".

5. Complete the co-relation -

J.L. Proust : Law of constant proportion : : Antoine Lavoisier : _____.

Q2. A) Give scientific reasons. (Any Two)

(4)

1. The velocity of an object at rest is considered to be uniform.

2. Element Sodium is monovalent.

3. Fuse wire is used to protect domestic appliances.

B) Answer the following questions. (Any Three)

(6)

1. Distinguish between kinetic energy and potential energy by giving any two points of difference.

2. Explain the relationship between Joule and Erg.

3. State Newton's first law of motion along with one example.

4. Find the amount of work done if 3C of charge is moved through a potential difference of 9V?

5. Classify the following as Basic or Acidic Radicals -

a) Au^{3+}

b) SO_4^{2-}

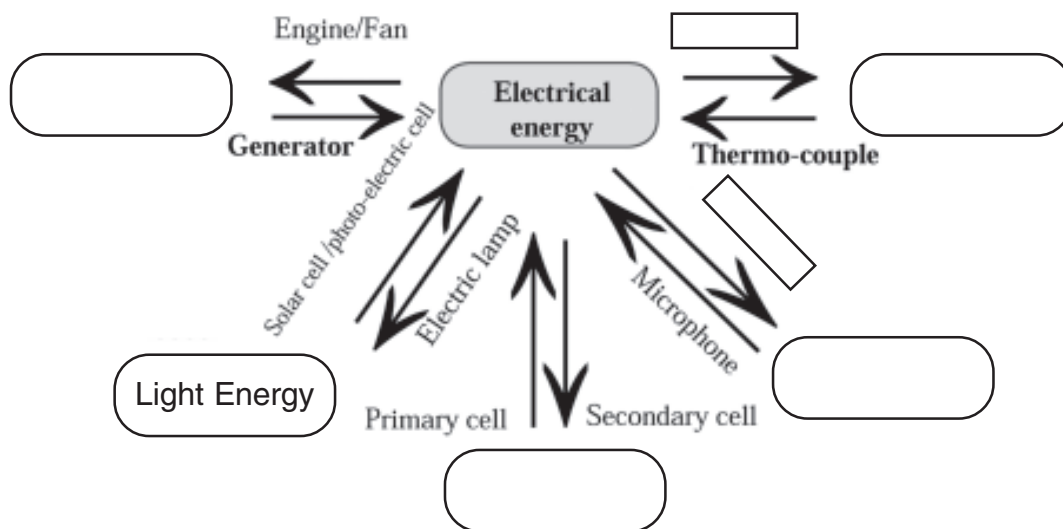
c) PO_4^{3-}

d) Hg^{2+}

Q3. Answer the following questions. (Any Five)

(15)

1. Deduce the number of molecules of the following compound in the given quantity.
(Atomic masses of O = 16, H = 1) 90 g of water.
2. Complete the following web of Transformation of Energy.



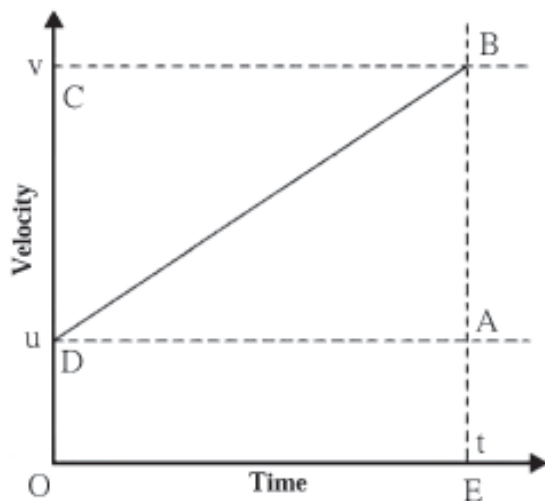
3. State Ohm's Law and hence derive it mathematically.
4. Distinguish between Atomic Number and Atomic Mass Number by giving three points of difference.
5. Deduce the chemical formula for Ferric Phosphate compound in a stepwise manner.
(The radicals are Fe^{3+} and PO_4^{3-})
6. Write any three precautions to be taken while using electricity.
7. A bullet having a mass of 0.01kg and moving with a speed of 1.5 m/s penetrates a thick wooden plank of mass 0.09kg. The plank was initially at rest. The bullet gets embedded in the plank and both move together. Determine their velocity.
8. Complete the following.

Component	Symbol	Use
a) Resistance		To control the flow of current in the circuit
b)	$-(\quad)-$	
c) Electric cell		
d) Connecting wire	$—$	

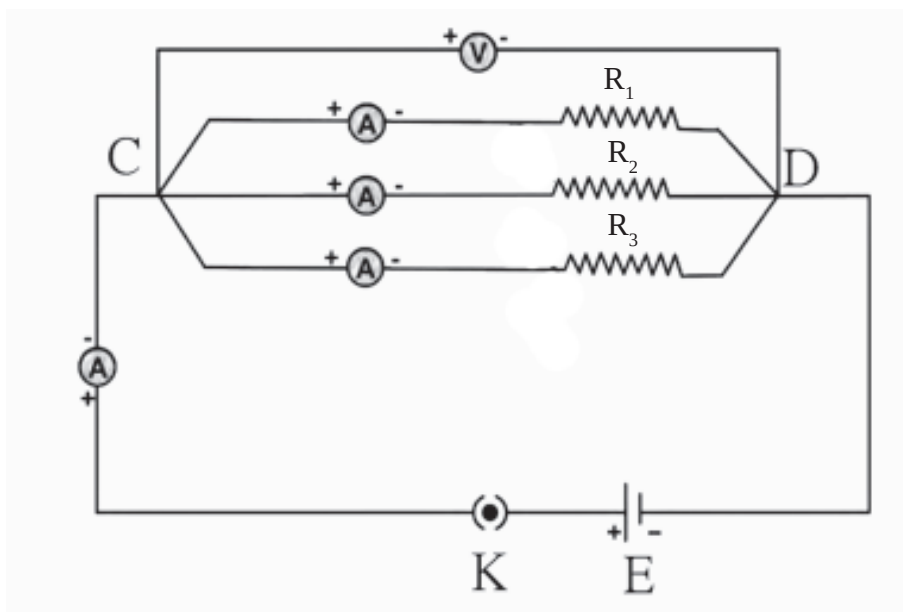
Q4. Attempt the following. (Any One)

(5)

1. Using the graphical method, derive an equation to show the relation between displacement and velocity for a uniformly accelerated motion.



2. Observe the following figure and answer the questions given below -



- a) Name the type of arrangement shown in the figure
- b) Write the equation to calculate the effective resistance in this circuit.
- c) Name the device connected in parallel with R_1 .
- d) For what purpose is this arrangement of resistors used?
- e) Name the device connected in series with R_1 .

