

# Step Academy official

Model Town Grw PH: 03016652757

STUDENT NAME	
PAPER CODE	22656
TIME ALLOWED	60
Paper Date	10-02-2026



CLASS	New 1st Year (FSC/ICS)
SUBJECT	Physics
TOTAL MARKS	25
Paper Type	

## Q1. Choose the correct answer.

5X1=5

1. The electric field created by positive charge is:

- (A) Radially inward                      (B) Zero                      (C) Circular                      (D) Radially outward

2. The force on an electron of  $1 \times 10^8 \text{ NC}^{-1}$  will be:

- (A)  $1.6 \times 10^{-8} \text{ N}$                       (B)  $1.6 \times 10^{-11} \text{ N}$                       (C)  $1.6 \times 10^{-19} \text{ N}$                       (D)  $1.6 \times 10^{27} \text{ N}$

3. A charged conductor has charge on its:

- (A) Inner-surface                      (B) Outer-surface                      (C) Middle point                      (D) Surrounding space

4. What is the work done on an electron by potential difference of 100 volts?

- (A)  $1.6 \times 10^{-19} \text{ eV}$                       (B)  $1.6 \times 10^{-17} \text{ eV}$                       (C)  $6.25 \times 10^{-17} \text{ eV}$                       (D) 100 eV

5. The potential at a point situated at a distance of 50cm from a charge of  $50 \mu\text{C}$  is:

- (A)  $9 \times 10^{-4} \text{ volts}$                       (B)  $18 \times 10^{-4} \text{ volts}$                       (C)  $9 \times 10^5 \text{ volts}$                       (D)  $18 \times 10^4 \text{ volts}$

## Q2. Write short answers of the following questions.

5X2=10

1 . How do electric field lines appear between two opposite charges?

2 . What is meant by zero electric potential?

3 . Is electron-volt a unit of potential difference or energy? Explain.

4 . What is a balancing length?

5 . What is a light dependent resistor (LDR)?

## Q3. Write detailed answers of the following questions.

2X5=10

1 . Explain the electric potential and prove that electric field intensity is equal to the negative of potential gradient.

2 .

The emf of a battery is 12 V. It is connected to a 3.6  $\Omega$  resistor. If the internal resistance of the battery is 0.2  $\Omega$ , what will be the terminal voltage across the battery?