

Step Academy official

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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 3.6Ω resistor. If the internal resistance of the battery is 0.2Ω , what will be the terminal voltage across the battery?