



Nombres de estudiantes:

Jesus Alberto Beato Pimentel.

Matriculas:

2023-1283.

Institución académica:

Instituto Tecnológico de las Américas (ITLA).

Materia:

Física Eléctrica

Profesor:

Lidia Noelia Almonte Rosario.

Tema:

Evidencia del Examen Final

(2)

Putor

$$F = I L B \sin(\theta)$$

$$F = 2.40 \text{ A} (0.750 \text{ m}) (1.60 \text{ T}) (\sin 90^\circ)$$

$$F = 2.40 \text{ A} (0.750 \text{ m}) (1.60 \text{ T}) (1)$$

$$F = 2.88 \text{ N}$$

$$I = 2.40 \text{ A}$$

$$L = 0.750 \text{ m}$$

$$\theta = 90^\circ$$

$$B = 1.60 \text{ T}$$

(4) Putor

$$q = 2.00 \mu\text{C} \rightarrow 2.00 \times 10^{-6} \text{ C}$$

$$F = 8.00 \times 10^{-4} \text{ N}$$

$$K = 9 \times 10^9 \text{ N} \cdot \text{m}^2 / \text{C}^2$$

$$E = 8.55 \times 10^6 \text{ N} / \text{C}$$

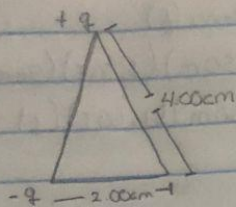
$$E = \frac{F}{q}$$

$$E = \frac{8.00 \times 10^{-4} \text{ N}}{2.00 \times 10^{-6} \text{ C}}$$

$$E = \frac{0.0008 \text{ N}}{0.000002 \text{ C}}$$

$$E = 400 \text{ N/C}$$

7



$$(4 \times 10^{-2})^2 = (h)^2 + (2 \times 10^{-2})^2$$

$$h = \sqrt{(4 \times 10^{-2})^2 - (2 \times 10^{-2})^2}$$

$$h = 0.0387 \text{ m}$$

$$V_P = V_1 + V_2 + V_3$$

$$V_P = K \left(\frac{Q_1}{r_1} + \frac{Q_2}{r_2} + \frac{Q_3}{r_3} \right)$$

$$V_P = 9 \times 10^4 \left(\frac{1.7 \times 10^{-6}}{h} + \frac{(-7 \times 10^{-6})}{(1 \times 10^{-2})} + \frac{(1 \times 10^{-6})}{(1 \times 10^{-2})} \right)$$

$$V_P = 9 \times 10^4 (-1.219 \times 10^{-3})$$

$$V = -10.97 \text{ mV}$$

9

Dato

$$m = 1.67 \times 10^{-27} \text{ kg}$$

$$C = 1.60 \times 10^{-19}$$

$$V_b - V_a = - \frac{1}{2} \frac{m(V_b^2 - V_a^2)}{q}$$

$$= \frac{(1.67 \times 10^{-27} \text{ kg})(3.9 \times 10^8 \text{ m}^2/\text{s}^2)}{3.2 \times 10^{-19} \text{ C}}$$

$$= -20.35 \text{ V}$$

Jesus Alberto Berto
Pimante
2023-1283

