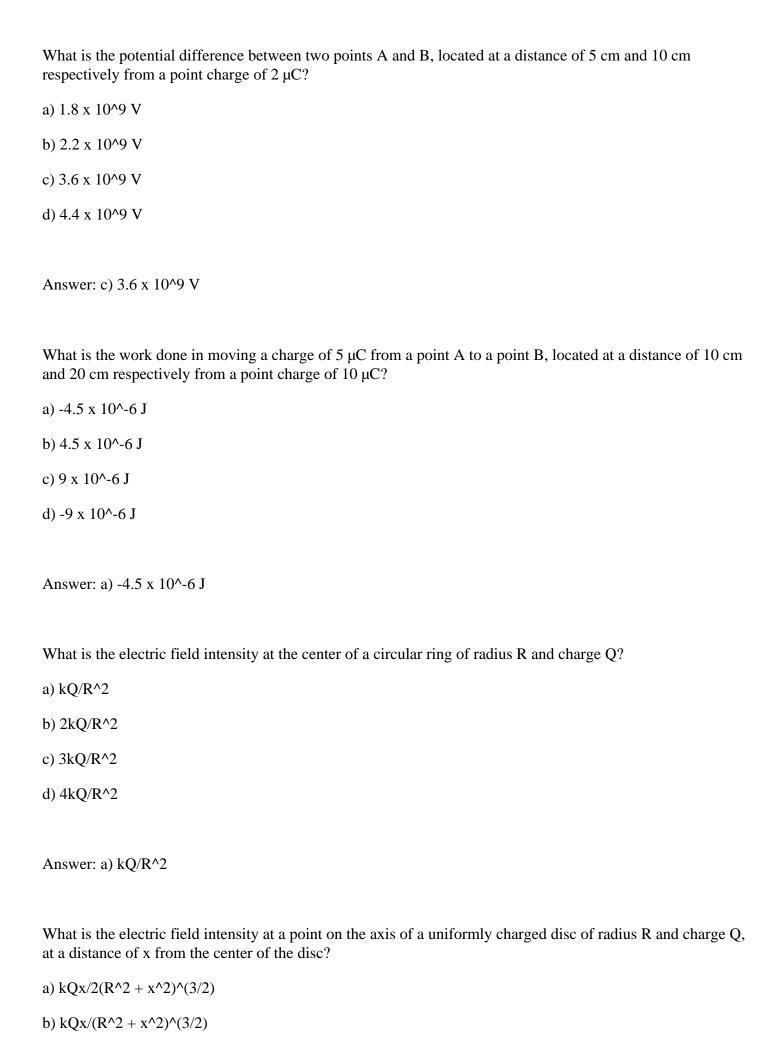
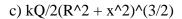
23 Lecture - PHY101

Important Mcqs

What is the electric field intensity at a distance of 2 meters from a point charge of 5 μ C?
a) 9 x 10^9 N/C
b) 1.125 x 10 ¹ 0 N/C
c) 2.25 x 10 ¹ 0 N/C
d) 4.5 x 10^10 N/C
Answer: b) 1.125 x 10^10 N/C
Which law of electrostatics relates the electric field to the charge density?
a) Coulomb's Law
b) Gauss's Law
c) Ohm's Law
d) Ampere's Law
Answer: b) Gauss's Law
What is the electric potential at a point P, located at a distance of 2 meters from a point charge of 10 μ C
a) 1.125 x 10^10 V
b) 9 x 10^9 V
c) 4.5 x 10 ¹⁰ V
d) 2.25 x 10 ¹⁰ V

Answer: d) 2.25 x 10^10 V





d)
$$kQ/(R^2 + x^2)(3/2)$$

Answer: b) $kQx/(R^2 + x^2)^(3/2)$

What is the electric potential at the center of a uniformly charged sphere of radius R and charge Q?

- a) kQ/R
- b) kQ/2R
- c) kQ/3R
- d) kQ/4R

Answer: d) kQ/4R

What is the work done in moving a charge of $10\,\mu\text{C}$ from a point A to a point B, located at a distance of 5 cm and 10 cm respectively from a uniformly charged sphere