Name: ....   **Number:** ....
Choose the correct answers for the followings problems

1. The total amount of charge of 2×10^{12} electrons is:

(a) 32 μC   **(b)** 32 nC

(c) 1.25×10^{31} C   **(d)** 8×10^{-32} C

YOUR ANSWER ( )

2. Two identical charges of 5 μC are separated by 4 cm. The force between them is:

(a) 140.6 N (attractive)   **(b)** 140.6 N (repulsive)

(c) 28.12 N (attractive)   **(d)** 28.12 N (repulsive)

YOUR ANSWER ( )

3. Two charges produce a force of 540 N if they are separated by 2 cm. If their separation is doubled, the magnitude of the force between them is:

(a) 270 N   **(b)** 1080 N

(c) 135 N   **(d)** 67.5 N

YOUR ANSWER ( )

4. The electric field at a distance 3 cm from a point charge Q is 80,000 N/C. The charge Q is:

(a) 8 nC   **(b)** 8 μC

(c) 6 μC   **(d)** 6 nC

YOUR ANSWER ( )

5. At a certain point, the electric field is measured to be 200 N/C. The magnitude of the electric force on a proton placed at this point is:

(a) 3.2×10^{-10} N   **(b)** 1.25×10^{21} N

(c) 3.2×10^{-17} N   **(d)** 1.25×10^{15} N

YOUR ANSWER ( )

Constants: electronic charge: $e = 1.6 \times 10^{-19}$ C - Coulomb's constant: $k = 9.0 \times 10^{9}$ N.m²/C²