# PHYSICS CLASS 12 BATCH

## Electric Charges and Field

**DPP-01**

**1.** Soap bubble 'A' is given a negative charge and soap bubble 'B' is given a positive charge, then radius of bubble 'A' and 'B'
(1) Decreases, decrease
(2) Increases, decreases
(3) Decreases, increases
(4) increases, increases

**2.** Two bodies are charged by rubbing one against the other During the process, one becomes positively charged while the other becomes negatively charged. Then mass of each body
(1) Remains unchanged
(2) Changes marginally
(3) Total mass changes slightly
(4) Changes slightly but the total mass remains unchanged

**3.** Five balls numbered 1 to 5 are suspended using separate threads. Pairs (1, 2), (2, 4) and (4, 1) show electrostatic attraction. while pair (2. 3) and (4. 5) show repulsion. Therefore ball 1 must be
(1) Positively charged
(2) Negatively charged
(3) Neutral
(4) Made of metal

**4.** Number of electrons in one coulomb of charge will be
(1) $5.46 \times 10^{29}$ (2) $6.25 \times 10^{18}$
(3) $1.6 \times 10^{+19}$ (4) $9 \times 10^{11}$

**5.** The electric charge in uniform motion produce
(1) An electric field only
(2) A magnetic field only
(3) Both electric and magnetic field
(4) Neither electric nor magnetic field

**6.** Identify the wrong statement.
(1) Charge is a vector quantity
(2) Current is a scalar quantity
(3) Charge can be quantised
(4) Charge is additive in nature.

**7.** If a charge on the body is –1nC, then how many electrons are present on the body?
(1) $1.6 \times 10^{19}$
(2) $6.25 \times 10^{9}$
(3) $6.25 \times 10^{27}$
(4) $6.25 \times 10^{28}$

**8.** A cylindrical conductor is placed near another positively charged conductor. The net charge acquired by the cylindrical conductor will be
(1) Positive only
(2) Negative only
(3) Zero
(4) Either positive or negative

**9.** When a piece of polythene is rubbed with wool, a charge of $-2 \times 10^{-7}$ C is developed on polythene. What is the amount of mass which is transferred to polythene?
(1) $5.69 \times 10^{-19}$ kg
(2) $6.25 \times 10^{-19}$ kg
(3) $9.63 \times 10^{-19}$ kg
(4) $11.38 \times 10^{-19}$ kg

**10.** The number of electrons in 2 C of charge is:
(1) $5 \times 10^{29}$
(2) $125 \times 10^{17}$
(3) $1.6 \times 10^{19}$
(4) $9 \times 10^{11}$

# ANSWER KEY

| | |
|---|---|
| 1. | (4) |
| 2. | (4) |
| 3. | (3) |
| 4. | (2) |
| 5. | (3) |
| 6. | (1) |
| 7. | (2) |
| 8. | (3) |
| 9. | (4) |
| 10. | (2) |