LAKSHYA (JEE)

Electric Charges and Field

DPP-01

1. A soap bubble is given a negative charge, then its radius
   (a) Decreases
   (b) Increases
   (c) Remains unchanged
   (d) Nothing can be predicted as information is insufficient

2. A body can be negatively charged by
   (a) Giving excess of electrons to it
   (b) Removing some electrons from it
   (c) Giving some protons to it
   (d) Removing some neutrons from it

3. The minimum charge on an object is
   (a) 1 coulomb
   (b) 1 stat coulomb
   (c) 1.6×10^{-19} coulomb
   (d) 3.2×10^{-19} coulomb

4. When 10^{14} electrons are removed from a neutral metal sphere, the charge on the sphere become
   (a) 16 µC
   (b) –16 µC
   (c) 32 µC
   (d) –32 µC

5. A conductor has 14.4×10^{-19} coulombs positive charge. The conductor has
   (Charge on electro $= 1.6 \times 10^{-19}$ coulombs)
   (a) 9 electrons in excess
   (b) 27 electrons in short
   (c) 27 electrons in excess
   (d) 9 electrons in short

6. Number of electrons in one coulomb of charge will be
   (a) 5.46×10^{29}
   (b) 6.25×10^{18}
   (c) $1.6 \times 10^{+19}$
   (d) 9×10^{11}

7. One metallic sphere A is given positive charge whereas another identical metallic sphere B of exactly same mass as of A is given equal amount of negative charge. Then
   (a) Mass of A and mass of B still remain equal
   (b) Mass of A increases
   (c) Mass of B decreases
   (d) Mass of B increases

8. Charge on α-particle is
   (a) 4.8×10^{-19} C
   (b) 1.6×10^{-19} C
   (c) 3.2×10^{-19} C
   (d) 6.4×10^{-19} C

9. 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
   (a) Positively charged
   (b) Negatively charged
   (c) Neutral
   (d) Made of metal

ANSWERS

1. **(b)**
2. **(a)**
3. **(c)**
4. **(a)**
5. **(d)**
6. **(b)**
7. **(d)**
8. **(c)**
9. **(c)**

Note – If you have any query/issue

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