Parishram (2025)

Physics

DPP: 1

Electric Charges and Fields

Q1 Soap bubble 'A' is given a negative charge and soap bubble 'B' is given a positive charge, then radius of bubble 'A' and 'B'
(A) decreases, decreases
(B) increases, decreases
(C) decreases, increases
(D) increases, increases

Q2 A body can be negatively charged by
(A) Rubbing
(B) By connecting with earth under the influence of positively charged conductor
(C) By connecting it with negatively charged conductor
(D) All of the above

Q3 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
(A) Remains unchanged
(B) Charges marginally
(C) Total mass changes slightly
(D) Changes slightly but the total mass remains unchanged

Q4 When a glass rod is rubbed with silk, it
(A) Gains electrons from silk
(B) Gives electrons to silk
(C) Gains protons from silk
(D) Gives protons to silk

Q5 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}

Q6 The electric charge in uniform motion produce
(A) An electric field only
(B) A magnetic field only
(C) Both electric and magnetic field
(D) Neither electric nor magnetic field

Q7 Identify the wrong statement.
(A) Charge is a vector quantity
(B) Current is a scalar quantity
(C) Charge can be quantised
(D) Charge is additive in nature.

Q8 If a charge on the body is - $1\,\mathrm{nC}$, then how many number of excess electrons are present on the body?
(A) 1.6×10^{19}
(B) 6.25×10^{9}
(C) 6.25×10^{27}
(D) 6.25×10^{28}

Answer Key

Q1	(D)	Q5	(B)
Q2	(D)	Q6	(C)
Q3	(D)	Q7	(A)
Q4	(B)	Q8	(B)

Hints & Solutions

Note: scan the QR code to watch video solution

Q1 Video Solution:

Q2 Video Solution:

Q3 Video Solution:

Q4 Video Solution:

Q5 Video Solution:

Q6 Text Solution:

$Q \rightarrow \vec{V} = \text{contant}$

$\vec{E}, \quad \vec{B}$

Video Solution:

Q7 Video Solution:

Q8 Text Solution:

(B)

Video Solution: