

*P*roblems For Practice

1. Calculate the charge carried by 12.5×10^8 electrons. [CBSE D 92] (Ans. 2×10^{-10} C)
2. How many electrons would have to be removed from a copper penny to leave it with a positive charge of 10^{-7} C? (Ans. 6.25×10^{11} electrons)
3. Calculate the charge on an alpha particle. Given charge on a proton = 1.6×10^{-19} C.
(Ans. + 3.2×10^{-19} C)
4. Calculate the charge on 5 Fe nucleus. Given charge on ${}_{26}^{56}\text{Fe}$ a proton = 1.6×10^{-19} C.
(Ans. + 4.16×10^{-18} C)
5. Determine the total charge on 75.0 kg of electrons. (Ans. 1.33×10^{13} C)
6. How many mega coulombs of positive (or negative) charge are present in 2.0 mole of neutral hydrogen (H_2) gas?
7. Estimate the total number of electrons present in 100 g of water. How much is the total negative charge carried by these electrons? Avogadro's number = 6.02×10^{23} and molecular mass of water = 18. (Ans. 5.35×10^6 C)