# PYQs on Atomic and Molecular Mass Equivalent Weight

A container is first filled with water and then the entire water is replaced by mercury. Mercury has a density of $13{\cdot}6 \times 10^3$ kg/m$^3$. If X is the weight of the water and Y is the weight of the mercury, then

(a) $X = Y$

(b) $X = 13{\cdot}6\ Y$

(c) $Y = 13{\cdot}6\ X$

(d) None of the above

. The equivalent weight of oxalic acid in $C_2H_2O_4 \cdot 2H_2O$ is

(a) 45

(b) 63

(c) 90

(d) 126

Chlorine occurs in nature in two isotopic forms of masses 35 u and 37 u in the ratio of 3 : 1 respectively. What is the average atomic mass of the Chlorine atom ?

(a) 36·1 u

(b) 35·5 u

(c) 36·5 u

(d) 35·1 u

The compound $C_6H_{12}O_4$ contains

(a) 22 atoms per mole

(b) twice the mass percent of H as compared to the mass percent of C

(c) six times the mass percent of C as compared to the mass percent of H

(d) thrice the mass percent of H as compared to the mass percent of O

What is the formula mass of anhydrous sodium carbonate? (Given that the atomic masses of sodium, carbon and oxygen are 23 u, 12 u and 16 u respectively)

*(a)* 286 u

*(b)* 106 u

*(c)* 83 u

*(d)* 53 u

A sample of oxygen contains two isotopes of oxygen with masses 16 u and 18 u respectively. The proportion of these isotopes in the sample is 3 : 1. What will be the average atomic mass of oxygen in this sample?

*(a)* 17·5 u

*(b)* 17 u

*(c)* 16 u

*(d)* 16·5 u


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