

CHEMISTRY

51. What is the weight of oxygen required for the complete combustion of 2.8 kg of ethylene?
 (1) 2.8 kg (2) 6.4 kg
 (3) 9.6 kg (4) 96 kg
52. 4.4 g of an unknown gas occupies 2.24 L of volume at standard temperature and pressure. The gas may
 (1) Carbon dioxide
 (2) Carbon monoxide
 (3) Oxygen
 (4) Sulphur dioxide
53. The number of oxygen atoms in 4.4 g of CO_2 is approx.
 (1) 1.2×10^{23} (2) 6×10^{22}
 (3) 6×10^{23} (4) 12×10^{23}
54. Number of molecules in 100 ml of each of O_2 , NH_3 and CO_2 at STP are
 (1) In the order $\text{CO}_2 < \text{O}_2 < \text{NH}_3$
 (2) In the order $\text{NH}_3 < \text{O}_2 < \text{CO}_2$
 (3) The same
 (4) $\text{NH}_3 = \text{CO}_2 < \text{O}_2$
55. 19.7 kg of gold was recovered from a smuggler. How many atoms of gold were recovered ($\text{Au} = 197$)?
 (1) 100 (2) 6.02×10^{23}
 (3) 6.02×10^{24} (4) 6.02×10^{25}
56. The largest number of molecules is in
 (1) 34g of water
 (2) 28g of CO_2
 (3) 46g of CH_3OH
 (4) 54g of N_2O_5
57. The percentage of nitrogen in urea is about
 (1) 46 (2) 85
 (3) 18 (4) 28
58. How much water should be added to 200 c.c of semi normal solution of NaOH to make it exactly deci normal?
 (1) 200 cc (2) 400 cc
 (3) 800 cc (4) 600 cc
59. In the reaction,
 $4\text{NH}_3(\text{g}) + 5\text{O}_2(\text{g}) \rightarrow 4\text{NO}(\text{g}) + 6\text{H}_2\text{O}(\text{g})$,
 When 1 mole of ammonia and 1 mole of O_2 are made to react to completion
 (1) 1.0 mole of H_2O is produced
 (2) 1.0 mole of NO will be produced
 (3) All the oxygen will be consumed
 (4) All the ammonia will be consumed
60. If $1\frac{1}{2}$ moles of oxygen combine with Al to form Al_2O_3 the weight of Al used in the reaction is ($\text{Al} = 27$)
 (1) 27 g (2) 54 g
 (3) 49.5 g (4) 31 g