

Model Question paper
Chemical Calculations 3

11th Standard

Chemistry

Reg.No. :

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I. Answer all the questions.

II. Use blue pen only.

Time : 00:30:00 Hrs

Total Marks : 20

8 x 1 = 8

Part - A

- 1) The volume occupied by 16g of oxygen at STP
(a) 22.4 L (b) 44.8 L (c) 11.2 L (d) 5.6 L
- 2) The value of gram molecular volume of ozone at S.T.P is
(a) 22.4 L (b) 2.24 L (c) 11.2 L (d) 67.2 L
- 3) The number of gram-atoms of oxygen in 128g of oxygen is
(a) 4 (b) 8 (c) 128 (d) $8 \times 6.02 \times 10^{23}$
- 4) The total number of moles present in 111 g of C_3Cl_2 is
(a) One moles (b) Two moles (c) Three moles (d) Four moles
- 5) Which of the following contains same number of carbon atoms as are in 6.0g of carbon (C-12)?
(a) 6.0g ethane (b) 8.0g methane (c) 21.0g Propane (d) 28.0g CO
- 6) 2.0 oxygen contains number of atoms same as in
(a) 4g of S (b) 7g of nitrogen (c) 0.5 g of H_2 (d) 12.3 g of Na
- 7) Hydrogen phosphate of certain metal has a formula $MHPO_4$, the formula of metal chloride is
(a) $MC1$ (b) $MC1_3$ (c) $MC1_2$ (d) $MC1_4$
- 8) 5L of 0.1 M solution of sodium Carbonate contains
(a) 53 g of Na_2CO_3 (b) 106 g of Na_2CO_3 (c) 10.6 of Na_2CO_3 (d) 5×10^2 millimoles of Na_2CO_3

Part - B

4 x 3 = 12

- 9) Can two different compounds have same molecular formula? Illustrate your answer with two examples.
- 10) What are the essentials of a chemical equation?
- 11) What are the information conveyed by a chemical equation?
- 12) Balance the following equations
 - i. $Fe + H_2O \rightarrow Fe_3O_4 + H_2$
 - ii. $Fe_2(SO_4)_3 + NH_3 + H_2O \rightarrow Fe(OH)_3 + (NH_4)_2SO_4$
 - iii. $KMnO_4 + H_2SO_4 \rightarrow K_2SO_4 + MnSO_4 + H_2O + O_2$
 - iv. $K_2Cr_2O_7 + H_2SO_4 \rightarrow K_2SO_4 + Cr_2(SO_4)_3 + H_2O + O_2$
