

CHOOSE THE CORRECT ANSWERS

Q1: The SI unit used for measuring the amount of a matter is:

- A. Gram B. Kilogram
C. Mole D. a.m.u.

Q2: Which one of the following is the tallest?

- A. 5.01 m B. 503 cm
C. 5048 mm **D. 0.0051 km**

Q3: How many cm^3 are there 2.4×10^3 microliter solution?

- A. 2.4** B. 24
C. 0.240 D. 240

Q4: How many significant figures should be reported for the sum $(4.097 + 0.12)$?

- A. 3** B. 4
C. 5 D. 6

Q5: Which of the following is a molecular compound?

- A. Co **B. NH_3**
C. CoCl_2 D. CsCl

Q6: Calcium phosphide and $\text{Cu}_3(\text{PO}_4)_2$ respectively are:

- A. Ca_3P_2 and Copper(II) phosphate**
B. $\text{Ca}_2(\text{PO}_4)_3$ and Copper(III) phosphate
C. Ca_2P_3 and Copper(II) phosphiate
D. $\text{Ca}_3(\text{PO}_4)_2$ and Copperous phosphate

Q7: Which compound is named **incorrectly**?

| | Compound | Name |
|-----------|-----------------|-------------------|
| A. | CaCl_2 | calcium chloride |
| B. | NO | nitrogen monoxide |
| C. | FeO | iron(II) oxide |
| D. | HBrO_2 | hypobromous acid |

Q8: Which of the following statements is **true** for an atom?

- A. number of electrons = number of protons = number of neutrons.
B. all particles in the atom are charged.
C. the volume of the nucleus is very small fraction of the atom.
D. The atom is best described as a uniform sphere of matter in which electrons are embedded.

Q9: The Cr element forms _____.

- A. +2 ions only B. +3 ions only
C. anions **D. either +2 or +3 ions**

Q10: A compound contains three chlorine atoms with a percent composition of 39.83%. What is the molecular weight of this compound?

- A. 267** B. 106
C. 119 D. 300

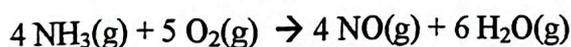
Q11: Which one of the following compounds contains the highest percentage by the mass of nitrogen?

- A. NH_3 **B. N_2H_4**
C. NO D. NH_2OH
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Q12: A compound has the molecular formula Cl_2O_7 . How many moles of chlorine atoms are in 10.0 g this compound?

- A. 0.25 B. 1.74
C. 0.025 **D. 0.13**
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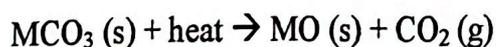
Q13: For the following reaction:



How many moles of NO can be produced, when 3.80 mol NH_3 react with 5.15 mol O_2 ?

- A. 3.80** B. 4.12
C. 5.15 D. 6.44
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Q14: For the following reaction:



1.056 g of MCO_3 , containing an unknown metal M , is heated to give the metal oxide and 0.376 g of CO_2 . The identity of the metal M is _____.

- A. Ni **B. Cu**
C. Zn D. Ba
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Q15: The reaction of 10 g H_2 with 10 g O_2 yields 8.43 g H_2O . What is the percent yield of this reaction?

- A. 27.3% B. 42.2%
C. 66.8% **D. 74.9%**
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