

MOCK for Quiz-2

CHEM 101

1st term 1438-2016

1- Which of the following is false about a neutron?

- A) It has a positive charge
- B) It is much more massive than an electron.
- C) It is often associated with protons.
- D) It is more difficult to detect than a proton or an electron.

2) Which of the following elements has an atomic number of 26?

- A) K
- B) Ca
- C) Fe
- D) Br

3) Who in 1909 showed the charge on the electron, by oil drop experiment?

- A) Ernest Rutherford.
- B) John Dalton.
- C) Niels Bohr.
- D) Robert A. Millikan.

4) Anions are formed when atoms

- A) Gain of protons.
- B) Lose of neutrons.
- C) Gain of electrons.
- D) Lose of electrons

5) How many total atoms are in the formula $(\text{NH}_4)_2\text{SO}_4$?

- A) 7
- B) 12
- C) 8
- D) 15

6) Among the following substances, the one that is not a compound is:

- A) H_2O
- B) Cl_2
- C) MnO_2
- D) CO_2

7) Chlorine is considered which of the following?

- A) atomic element
- B) molecular compound
- C) molecular element
- D) ionic compound

8) What is correct name of the compound whose formula is P_4O_6 ?

- A) Phosphorous oxide
- B) Phosphorous hexoxide
- C) Tetra phosphorous oxide
- D) Tetra phosphorous hexoxide

9) How many atoms are in 3.50 moles of Ca?

- A) 6.02×10^{23}
- B) 2.10×10^{24}
- C) 0.581×10^{-23}
- D) 3.49×10^{24}

10) Calculate the molar mass of sodium sulphate Na_2SO_4 .

- A) 59 g/mol
- B) 71 g/mol
- C) 119 g/mol
- D) 142. g/mol

11) The molecular formula of a compound:

- A) Indicates the simplest ratio of atoms in the compound
- B) Indicates the actual number of atoms in the compound
- C) Indicates the structure of the molecule.
- D) Is the same as the empirical formula.

12) The electron configuration of Ne is:

- A) $1S^2 2S^2 2P^5$ C) $1S^2 2S^2 2P^6 3S^2 3P^6 4S^2$
B) $1S^2 2S^2 2P^6$ D) $1S^2 2S^2 2P^3$

13) The chemical formula for iron(II) oxide is:

- A) Fe_2O_3 B) Fe_2O C) FeO_2 D) **FeO**

14) What is the mass percent of calcium in $CaSO_4$?

- A) 19.4% B) **29.4%** C) 39.4% D) 49.4%

15) An example of a molecular compound is:

- A) **H_2O** B) MgO C) Na_2O D) CaF_2

16) The coefficients (a, b, c, d) needed to balance the equation



- A) 3, 2, 2, 2 B) **2, 3, 3, 2** C) 4, 2, 2, 4 D) 4, 3, 3, 2

17) In a chemical bond, the polarity of it can be specified by:

- A) electron affinity C) **electronegativity**
B) ionization energy D) metallic character

18) Group 1A metals in their compounds always have an oxidation state of:

- A) +2 B) -2 C) 0 D) **+1**

19) The resulting bond due to transfer of electron is:

- A) non polar covalent B) polar covalent C) **ionic** D) Metallic

20) Substance that produces H^+ ion is called:

- A) **acid** B) base C) alkali D) antacid

21) A proton that associates with water has a form:

- A) H^+ B) OH^+ C) **H_3O^+** D) O_3

22) 105 g of $MgCl_2$ contains _____ mol $MgCl_2$.

- A) 105 B) 6.62×10^{23} C) **1.10** D) 1.76

23) What is the molarity of a solution containing 5.00 moles of KCl in 2.00 L of solution?

- A) **2.50 M** B) 1.00 M C) 5.00 M D) 10.0 M

24) Which of the following is the weak electrolyte?

- A) HNO_3 B) HBr C) **HF** D) HCl

25) $LiOH$ can be classified as a(n) _____.

- A) gas B) solid C) weak electrolyte D) **strong electrolyte**