

1) c

7) c

2) a

8) a

3) a

9) c

4) b

10) a

5) c

6) a



This slide . . . 7 Lecture . . . 10 sit for n . . .

$$1) \text{ Molarity} = \frac{\text{Solut}}{\text{Solution}} \quad (\text{mol/L})$$

$$2) \text{ Molality} = \frac{\text{Solut}}{\text{Solvent}} \quad (\text{mol/Kg})$$

$$3) \text{ Normality} = \frac{\text{Solut}}{\text{Solution}} \quad (\text{g eq/L})$$

$$4) \text{ weight percent w/w} = \frac{\text{mass of solute}}{\text{mass of solution}} \times 100$$

$$\text{Volume Percent V/V} = \quad " \quad "$$



FIRST MIDTERM EXAM. 1436 - 1436 H

Group: [redacted]

FIRST QUESTION

Choose the correct answer (write your answer in the table)

5/10

1. Analytical chemistry deals with methods for ..... the chemical composition of samples.

- a. Identifications      b. Determination      c. Both a and b

2. In order to perform quantitative analysis, one needs to complete..... analysis

- a. Qualitative      b. Volumetric      c. Gravimetric

3. Gravimetric Method use an ..... technique

- a. Mass      b. instrumental      c. volume

4. For any element atomic mass (amu) equal molar mass .....

- a. grams/mole      b. grams      c. mole

5. .... is an invariant measurement of The amount of matter

- a. Weight      b. Force      c. Mass

6. .... formulas give information only about the simplest ratio between the different elements composing the molecule

- a. Empirical      b. Molecular      c. structure

7. How many moles or mill moles are contained in 2.00 g of pure benzoic acid ( $C_6H_5COOH$ )

- a. 16.4 mol      b. 61.000mmol      c. 0.0164 mol

$$(12 \times 7) + (1 \times 6) + (16 \times 2) = 122$$

$$\frac{2.00}{122} = 0.01639 \text{ mol}$$

See next page



5. 117.0 g of NaCl dissolved in 1.00 L of water has an analytical concentration of ... mol/L.  
 a. 2.00 mol/L  
 b. 0.02 mol/L  
 c. 0.1 mol/L  
 $\frac{117.0}{58.5} = 2 \text{ mol/L}$
9. A unit which defines the number of units of a chemical species  
 a. Mol/L  
 b. g.eq/L  
 c. Mole
10.  $\text{H}_2\text{SO}_3$  sulphurous acid is.....  
 a. Weak electrolyte  
 b. Strong electrolyte  
 c. Nonelectrolyte

9-5

Question number	1	2	3	4	5	6	7	8	9	10
Answer	c	a	a	b	c	a	c	a	c	b

**SECOND QUESTION**

What is ways of expiration of concentration?

.....

.....

.....

.....

.....

??

Element	Mwt	Element	Mwt
H	1	Cl	35.5
C	12	N	14
O	16	Na	23

28-3

ALL MY BEST  
 Dr. salwa alsh...