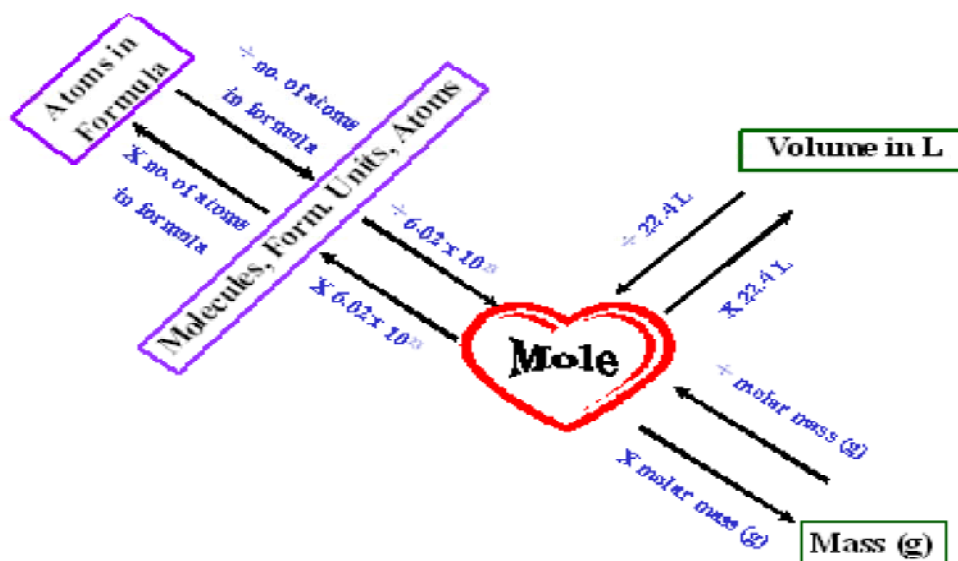


## Practice test chapter 10

**Multiple Choice** - Choose the correct answer for the following questions. You may write on the test, only your answers on the scantron will be graded.

\*You will have questions over past chapters 1,2,3,4,25 and lots of naming from chapter 9.



- \_\_\_ 1. How many moles of  $\text{CH}_4$  are contained in 96.0 grams of  $\text{CH}_4$ ?
- |         |         |
|---------|---------|
| a. 3.00 | c. 6.00 |
| b. 12.0 | d. 16.0 |
- \_\_\_ 2. What type of representative particle is  $\text{H}_2\text{O}$ ?
- |                 |         |
|-----------------|---------|
| a. formula unit | c. atom |
| b. molecule     |         |
- \_\_\_ 3. Look at the compound below. How many total atoms are present for each element?
- $\text{Zn}(\text{ClO})_2$
- |      |      |
|------|------|
| a. 4 | c. 6 |
| b. 5 | d. 3 |
- \_\_\_ 4. How many atoms are contained in 97.6 g of silver?
- |                          |                          |
|--------------------------|--------------------------|
| a. $5.45 \times 10^{23}$ | c. $1.20 \times 10^{24}$ |
| b. $3.01 \times 10^{23}$ | d. $1.10 \times 10^{23}$ |
- \_\_\_ 5. Name the following  $\text{Cl}_2\text{O}_7$
- |                          |                         |
|--------------------------|-------------------------|
| a. Perchlorate           | c. dichlorine hexoxide  |
| b. dichlorine heptaoxide | d. dichlorine heptoxide |
- \_\_\_ 6. What is the gram formula mass of chromium (III) oxalate?
- |              |              |
|--------------|--------------|
| a. 65 g/mol  | c. 396 g/mol |
| b. 192 g/mol | d. 368 g/mol |

- \_\_\_\_ 7. Choose the correct formula for Ammonium oxalate.
- |  |  |
|--|--|
| a. $\text{NH}_4\text{C}_2\text{O}_4$     | c. $\text{C}_2\text{O}_4(\text{NH}_4)_2$           |
| b. $(\text{NH}_4)_2\text{C}_2\text{O}_4$ | d. $(\text{NH}_4)_2\text{C}_2\text{H}_3\text{O}_2$ |
- \_\_\_\_ 8. What is the density of 1 mole of  $\text{CO}_2$  gas at STP?
- |             |             |
|-------------|-------------|
| a. 1.34 g/L | d. 0.49 g/L |
| b. 0.4 g/L  | e. 0.75 g/L |
| c. 1.96 g/L |             |
- \_\_\_\_ 9. What is the volume of 1 mole of Chlorine gas at standard temperature and pressure?
- |           |                            |
|-----------|----------------------------|
| a. 22.4 L | c. $6.02 \times 10^{23}$ L |
| b. 12.2 L | d. 67.2 L                  |
- \_\_\_\_ 10. Choose the correct name for HF.
- |                              |                          |
|------------------------------|--------------------------|
| a. hydrogen fluoride acid    | c. hydrofluoric acid     |
| b. monohydrogen monofluoride | d. hydrogen monofluoride |
- \_\_\_\_ 11. Calculate the number of molecules in 60.0 g of  $\text{NO}_2$ .
- |                          |                         |
|--------------------------|-------------------------|
| a. $7.85 \times 10^{23}$ | c. $7.9 \times 10^{24}$ |
| b. $1.20 \times 10^{24}$ | d. $3.6 \times 10^{25}$ |
- \_\_\_\_ 12. Which compound/s represent a molecular compound?
- |                  |                   |
|------------------|-------------------|
| a. CrO           | c. $\text{KNO}_2$ |
| b. $\text{CH}_4$ | d. LiF            |
- \_\_\_\_ 13. How many oxygen atoms are there in 1.75 mol of Calcium phosphite?  
**Hint:** First write the formula for calcium dichromate.
- |                                       |                                    |
|---------------------------------------|------------------------------------|
| a. $3.01 \times 10^{24}$ oxygen atoms | c. 7 oxygen atoms                  |
| b. $6 \times 10^{24}$ oxygen atoms    | d. $6 \times 10^{25}$ oxygen atoms |
- \_\_\_\_ 14. NaCl can be classified as what type of compound?
- |           |              |
|-----------|--------------|
| a. ionic  | c. molecular |
| b. acidic |              |
- \_\_\_\_ 15.  $\text{SO}_2$  can be classified as what type of compound?
- |           |                   |
|-----------|-------------------|
| a. ionic  | c. polyatomic ion |
| b. acidic | d. molecular      |
- \_\_\_\_ 16. How many atoms of chromium are there given 13 grams of chromium?
- |                         |                         |
|-------------------------|-------------------------|
| a. $1.5 \times 10^{23}$ | c. $3.3 \times 10^{23}$ |
| b. $1.9 \times 10^{26}$ | d. $2.4 \times 10^{24}$ |
- \_\_\_\_ 17. Which of the following is a monatomic gas at STP?
- |             |             |
|-------------|-------------|
| a. Chlorine | c. Fluorine |
| b. Argon    | d. Nitrogen |
- \_\_\_\_ 18. What is the volume of a 200-gram sample of nitrogen gas at STP?
- |               |               |
|---------------|---------------|
| a. 320-liters | d. 125-liters |
| b. 250-liters | e. 8.9-liters |
| c. 160-liters |               |
- \_\_\_\_ 19. How many representative particles are in  $1.50 \times 10^{23}$  moles of nitrogen dioxide?
- |  |                                   |
|--|-----------------------------------|
| a. $8.00 \times 10^{-22}$ formula units. | d. $1.50 \times 10^{23}$ atom     |
| b. 0.208 molecule                        | e. $9.03 \times 10^{46}$ molecule |
| c. $1.25 \times 10^{21}$ formula units.  |                                   |

Name: \_\_\_\_\_

ID: A

- \_\_\_\_\_ 20. What is the mass of a 55-Liter sample of krypton gas at STP?
- a. 205-grams
  - b. 250-grams
  - c. 550-grams
  - d. 610-grams
- \_\_\_\_\_ 21. What is the correct formula for copper (I) peroxide?
- a. CuO
  - b. CuO<sub>2</sub>
  - c. Cu<sub>2</sub>O
  - d. Cu<sub>2</sub>O<sub>2</sub>
- \_\_\_\_\_ 22. What is the percent composition of chromium in Barium chromate?
- a. 4.87%
  - b. 9.47%
  - c. 20.5%
  - d. 25.2%
- \_\_\_\_\_ 23. What are the correct values for STP?
- a. 1°C and 101.3 kPa
  - b. 0°C and 101.3 kPa
  - c. 0°C and 22.4 kPa
  - d. 0°C and 100 kPa

### Multiple Response

*Identify one or more choices that best complete the statement or answer the question.*

- \_\_\_\_\_ 24. Which of the following is NOT classified correctly as a representative particle?
- a. SO = molecular
  - b. Cu = formula unit
  - c. (NH<sub>4</sub>)<sub>2</sub>SiO<sub>3</sub> = molecule
  - d. O<sub>2</sub> = atom

**Practice test chapter 10**  
**Answer Section**

**MULTIPLE CHOICE**

- |            |        |
|------------|--------|
| 1. ANS: C  | PTS: 1 |
| 2. ANS: B  | PTS: 1 |
| 3. ANS: B  | PTS: 1 |
| 4. ANS: A  | PTS: 1 |
| 5. ANS: D  | PTS: 1 |
| 6. ANS: D  | PTS: 1 |
| 7. ANS: B  | PTS: 1 |
| 8. ANS: C  | PTS: 1 |
| 9. ANS: A  | PTS: 1 |
| 10. ANS: C | PTS: 1 |
| 11. ANS: A | PTS: 1 |
| 12. ANS: B | PTS: 1 |
| 13. ANS: B | PTS: 1 |
| 14. ANS: A | PTS: 1 |
| 15. ANS: D | PTS: 1 |
| 16. ANS: A | PTS: 1 |
| 17. ANS: B | PTS: 1 |
| 18. ANS: C | PTS: 1 |
| 19. ANS: E | PTS: 1 |
| 20. ANS: A | PTS: 1 |
| 21. ANS: D |        |
| ST 2A, 2B  |        |
| PTS: 1     |        |
| 22. ANS: C | PTS: 1 |
| 23. ANS: B | PTS: 1 |

**MULTIPLE RESPONSE**

- |                  |        |
|------------------|--------|
| 24. ANS: B, C, D | PTS: 1 |
|------------------|--------|