

**(MCC01-AKU-01M)**

- What is the mass of  $3.0 \times 10^{23}$  atoms of neon gas?
  - A) 0.50 grams
  - B) 1.0 grams
  - C) 5.0 grams
  - D) 10.0 grams

**(MCC01-AKU-02M)**

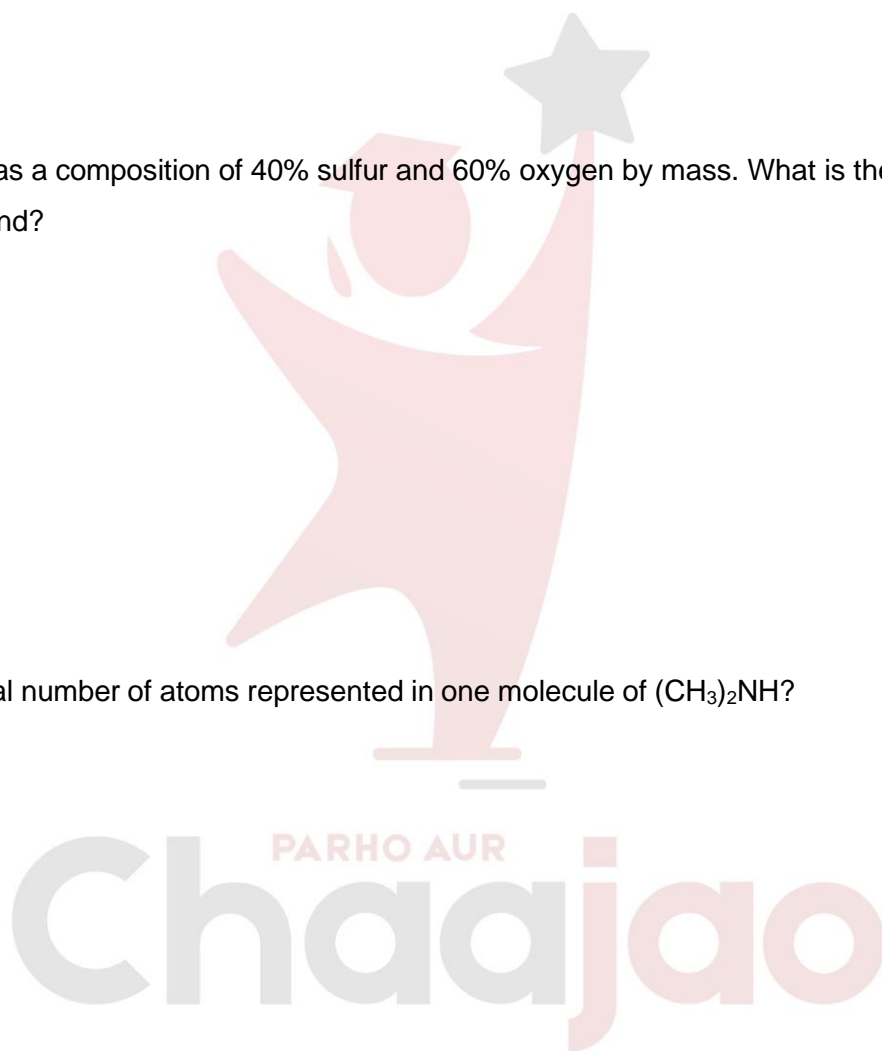
- A compound has a composition of 40% sulfur and 60% oxygen by mass. What is the empirical formula of this compound?
  - A) SO
  - B) S<sub>2</sub>O<sub>3</sub>
  - C) S<sub>2</sub>O<sub>7</sub>
  - D) SO<sub>3</sub>

**(MCC01-AKU-03E)**

- What is the total number of atoms represented in one molecule of (CH<sub>3</sub>)<sub>2</sub>NH?
  - A) 5
  - B) 8
  - C) 9
  - D) 10

**(MCC01-AKU-04E)**

- A hydrocarbon has the empirical formula CH<sub>3</sub>. A probable molecular formula for this compound could be
  - A) C<sub>3</sub>H<sub>3</sub>
  - B) C<sub>2</sub>H<sub>6</sub>
  - C) C<sub>3</sub>H<sub>8</sub>
  - D) C<sub>4</sub>H<sub>8</sub>



(MCC01-AKU-05E)

- What is the number of protons and neutrons in an atom with mass number 89 and atomic number 39?  
A) 50 protons and 50 neutrons  
B) 50 protons and 39 neutrons  
C) 39 protons and 89 neutrons  
D) 39 protons and 50 neutrons

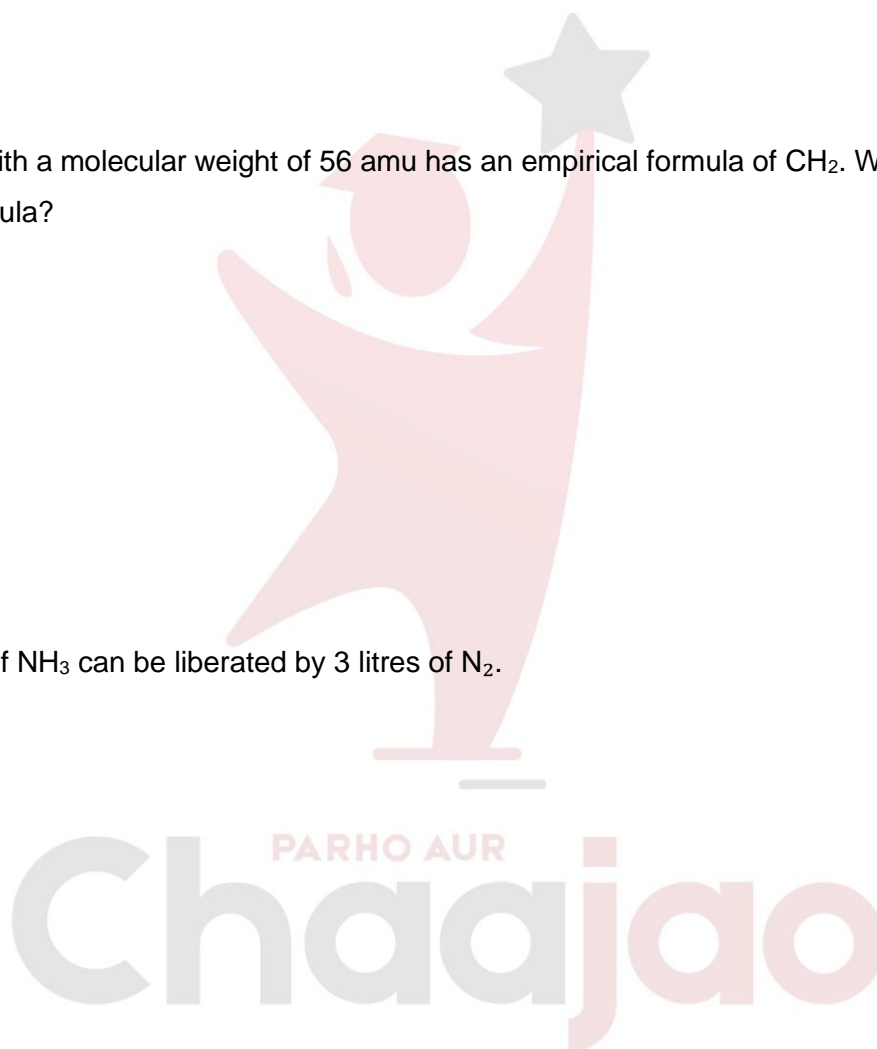
(MCC01-AKU-06E)

- A compound with a molecular weight of 56 amu has an empirical formula of  $\text{CH}_2$ . What is its molecular formula?  
A)  $\text{C}_2\text{H}_2$   
B)  $\text{C}_2\text{H}_4$   
C)  $\text{C}_4\text{H}_8$   
D)  $\text{C}_4\text{H}_{10}$

(MCC01-AKU-07E)

- What volume of  $\text{NH}_3$  can be liberated by 3 litres of  $\text{N}_2$ .  
A) 2  
B) 3  
C) 5  
D) 6

ANS: (D)



(MCC01-AKU-08E)

- Molecular mass of water (18 gm) means:  
A)  $6.02 \times 10^{23}$  molecule of water  
B) 1 mole of water  
C) 1 gram mole of water  
D) All of these

ANS: (D)

(MCC01-AKU-09E)

- What is the mass of an object that has a density of 13 g/mL and a volume of 10 mL?

- A) 1.3 g
- B) 0.77 g
- C) 1.3 g/L
- D) 130 g

**ANS: (D)**

(MCC01-AKU-10E)

- Which sentence below is incorrect?

- A) Salads are heterogeneous mixtures.
- B) NaCl(aq) is a homogeneous mixture.
- C) Sand and water make a heterogeneous mixture.
- D) Pure iron is a heterogeneous mixture.

**ANS: (D)**

(MCC01-AKU-11E)

- Which type of change is different from the other four?

- A) Baking a potato
- B) Rusting of an iron nail
- C) Burning a piece of paper
- D) Melting an ice cube

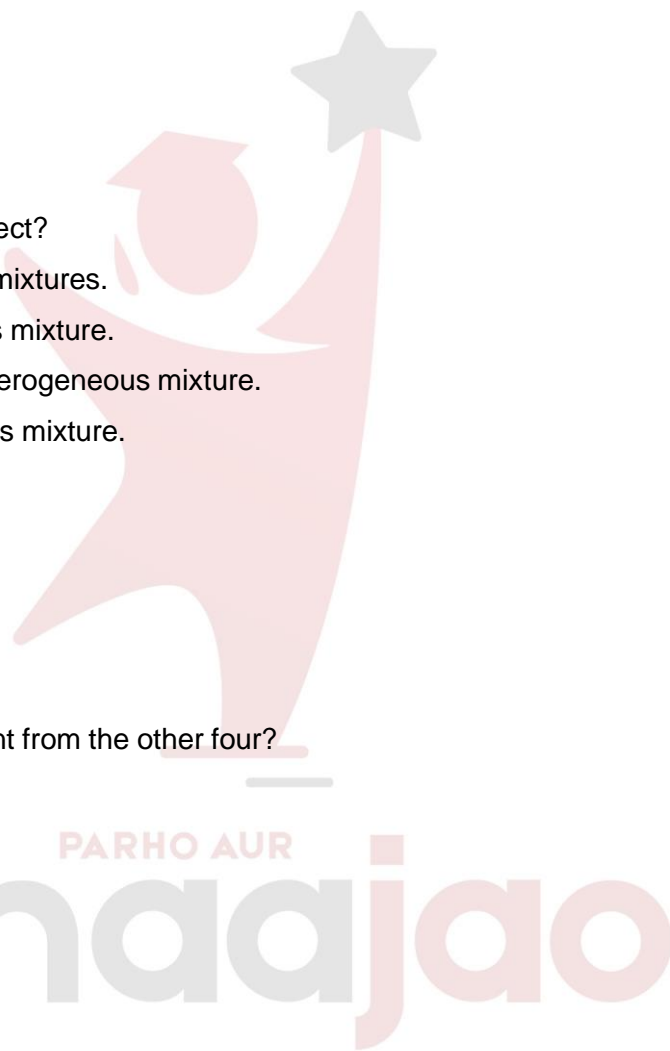
**ANS: (B)**

(MCC01-AKU-12E)

- Which of the following is a physical property?

- A) Color
- B) Phase
- C) Odor
- D) All of these

**ANS: (D)**



(MCC01-AKU-13H)

- A mysterious element has the following relative abundances:

X-34 15% X-35 20% X-36 65%

Which of the following is true?

- A) The atomic mass of this element is closer to 34.1.
- B) The atomic mass of this element cannot be determined without knowing exactly what X is.
- C) A mass spectrophotometer would not be helpful in determining the percentages of the isotopes.
- D) The atomic mass is approximately 35.5.

**ANS: (D)**

(MCC01-AKU-14E)

- The most unreactive family of elements

- A) Alkali metals
- B) Alkaline earth metals
- C) Noble gases
- D) Halogens

**ANS: (C)**

(MCC01-AKU-15E)

- Which forms negative ions in an ionic bond

- A) Alkali metals
- B) Alkaline earth metals
- C) Noble gases
- D) Halogens

**ANS: (D)**



Answer Keys	
1	S
2	D
3	D
4	B
5	D
6	C
7	D
8	D
9	D
10	D
11	D
12	D
13	D
14	C
15	D

PARHO AUR  
**Chaaajao**