

(ECC01-0001H)

- The positive ions having group of atoms are \_\_\_\_\_ common.  
A) More  
B) Less  
C) Equal  
D) None

(ECC01-0002E)

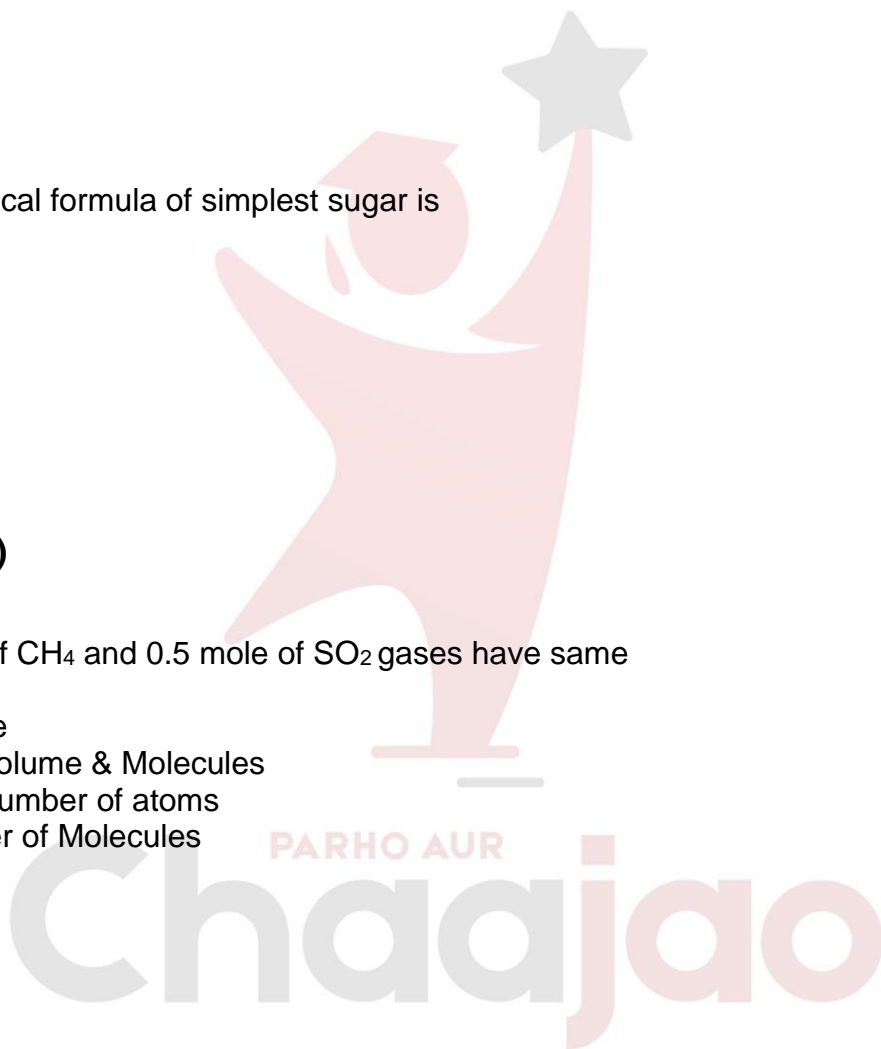
- The empirical formula of simplest sugar is  
a. CH  
b. CH<sub>2</sub>O  
c. C<sub>6</sub>H<sub>6</sub>  
d. CHO

(ECC01-0003M)

- 0.5 mole of CH<sub>4</sub> and 0.5 mole of SO<sub>2</sub> gases have same  
A) Volume  
B) Both Volume & Molecules  
C) Total number of atoms  
D) Number of Molecules

(ECC01-0004M)

- What is the mass of water formed when 4 grams H<sub>2</sub> and 64 grams of O<sub>2</sub> combined together  
A) 66 grams  
B) 18 grams  
C) 36 grams  
D) 66 grams



## (ECC01-0005H)

- The total number of covalent bonds in 4.5 grams of water is
  - A)  $6.02 \times 10^{23}$
  - B)  $6.02 \times 10^{22}$
  - C)  $3.01 \times 10^{22}$
  - D)  $3.01 \times 10^{23}$

## (ECC01-0006E)

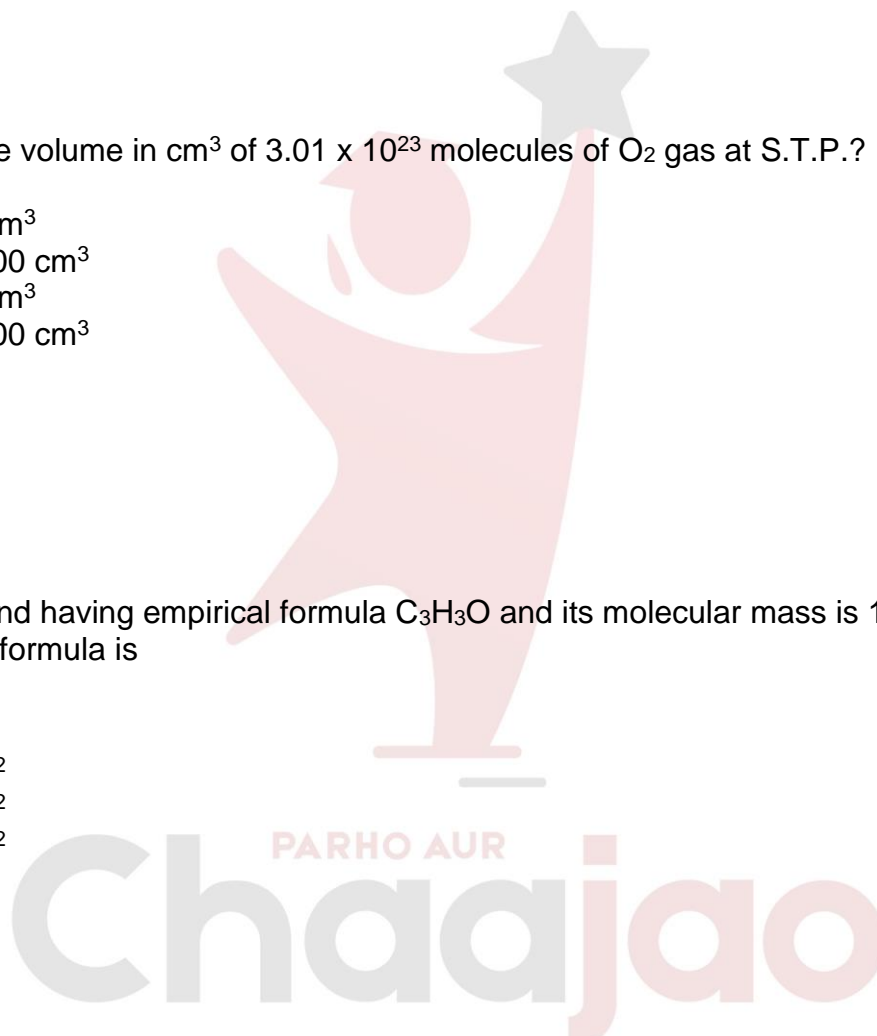
- What is the volume in  $\text{cm}^3$  of  $3.01 \times 10^{23}$  molecules of  $\text{O}_2$  gas at S.T.P.?
  - A)  $1000 \text{ cm}^3$
  - B)  $11000 \text{ cm}^3$
  - C)  $1120 \text{ cm}^3$
  - D)  $11200 \text{ cm}^3$

## (ECC01-0007E)

- A compound having empirical formula  $\text{C}_3\text{H}_3\text{O}$  and its molecular mass is 110.02 its molecular formula is
  - A)  $\text{C}_3\text{H}_3\text{O}$
  - B)  $\text{C}_6\text{H}_6\text{O}_2$
  - C)  $\text{C}_9\text{H}_9\text{O}_2$
  - D)  $\text{C}_3\text{H}_6\text{O}_2$

## (ECC01-0008M)

- In the determination of atomic ratio of the elements the mole ratios are divided by
  - A) Least value of gram atoms of elements
  - B) Atomic masses of elements
  - C) Given mass of the Compound
  - D) Molecular mass of the compound



**(ECC01-0009E)**

- Which one of the following steps is not involved in determination of empirical formula?
  - A) Determination % of each element
  - B) Determination of gram atoms of each elements
  - C) Determination of isotopes of each elements
  - D) Determination of atomic ratio of elements

**(ECC01-0010M)**

- Which of the following salts will have greater positive charge in its molar aqueous solution keeping in mind that solution as a whole remains neutral?
  - A)  $\text{CaCl}_2$
  - B)  $\text{KCl}$
  - C)  $\text{NH}_4\text{Cl}$
  - D)  $\text{NaCl}$

**(ECC01-0011E)**

- A molecule is the smallest particle of a substance because
  - A) It has positive charge on it.
  - B) It exists independently
  - C) It decomposes into ions
  - D) It is always mono atomic

**(ECC01-0012M)**

- 9.8 grams of aqueous solution of  $\text{H}_2\text{SO}_4$  contains moles of  $\text{H}^+$  ions
  - A) 0.1
  - B) 0.2
  - C) 0.11
  - D) 0.01

**(ECC01-0013M)**

- The pressure of vapours when sent to the ionization chamber in mass spectrometer is
  - A)  $10^{-5}$  to  $10^{-6}$  torr
  - B)  $10^{-6}$  to  $10^{-7}$  torr
  - C)  $10^{-7}$  to  $10^{-8}$  torr
  - D)  $10^{-3}$  to  $10^{-4}$  torr

**(ECC01-0014E)**

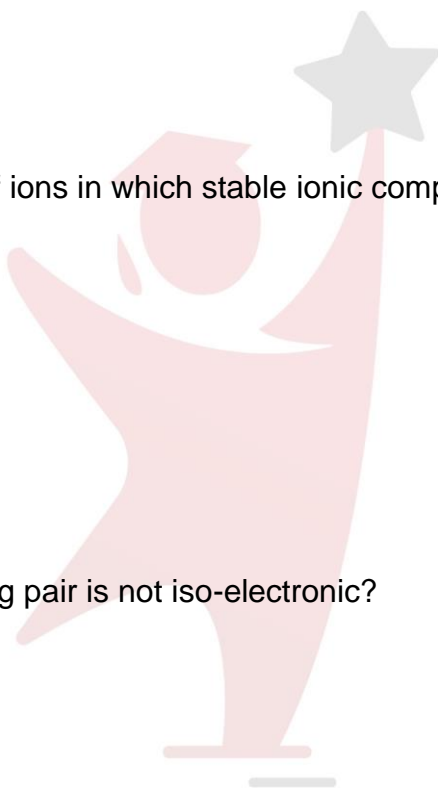
- The smallest collection of ions in which stable ionic compound is stable:
  - A) Chemical formula
  - B) Molecular formula
  - C) Formula unit
  - D) Formula mass

**(ECC01-0015E)**

- Which one of the following pair is not iso-electronic?
  - A) CO, N<sub>2</sub>
  - B) Na<sup>+</sup>, Ne
  - C) Ca, Ar
  - D) K<sup>+</sup>, Ar

**(ECC01-0016H)**

- Which one of the following is not a molecular ion?
  - A) N<sub>2</sub><sup>+</sup>
  - B) CH<sub>4</sub><sup>+</sup>
  - C) C<sub>7</sub>H<sub>8</sub><sup>+</sup>
  - D) NH<sub>4</sub><sup>+</sup>



PARHO AUR  
**Chaaajao**

(ECC01-0017H)

- Atoms of the elements must be containing in nucleus
  - A) Proton
  - B) Proton and neutron
  - C) Neutron
  - D) Electron and neutron

(ECC01-0018M)

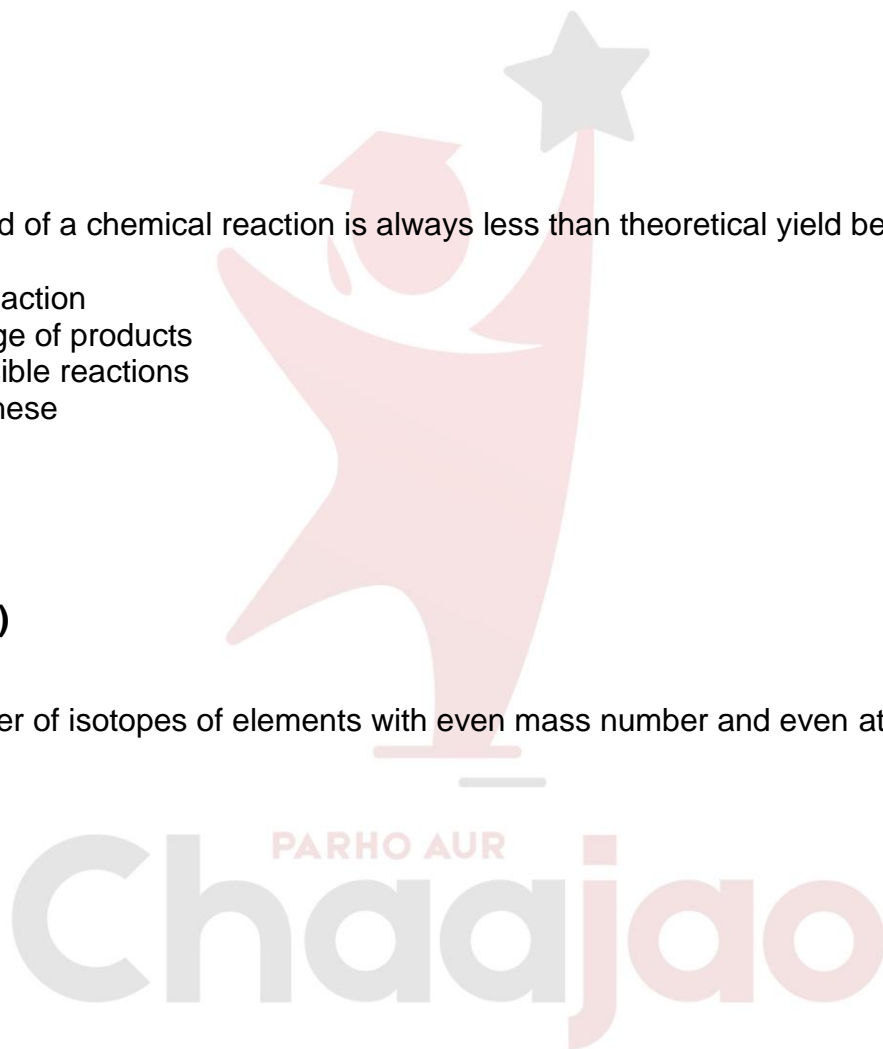
- Actual yield of a chemical reaction is always less than theoretical yield because
  - A) Side reaction
  - B) Wastage of products
  - C) Reversible reactions
  - D) All of these

(ECC01-0019M)

- The number of isotopes of elements with even mass number and even atomic number are
  - A) 280
  - B) 300
  - C) 154
  - D) 54

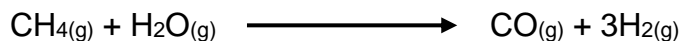
(ECC01-0020M)

- Which one of the following is not the mono isotopic elements?
  - A) Arsenic
  - B) Uranium
  - C) Iodine
  - D) Gold



**(ECC01-0021M)**

- Methane reacts with steam to form CO and H<sub>2</sub>



What volume of hydrogen gas can be obtained from 100 cm<sup>3</sup> of methane at STP?

- A) 300 cm<sup>3</sup>
- B) 200 cm<sup>3</sup>
- C) 150 cm<sup>3</sup>
- D) 100 cm<sup>3</sup>

**(ECC01-0022E)**

- 1.4 gm of N<sub>2</sub> reacts with hydrogen, what will be volume of NH<sub>3</sub> at S.T.P?

- A) 224 cm<sup>3</sup>
- B) 22.4 dm<sup>3</sup>
- C) 2.24 dm<sup>3</sup>
- D) 1.12 dm<sup>3</sup>

**(ECC01-0023M)**

- One mole of an organic compound is completely burn in oxygen. Which compound produces exactly three moles of water?

- A) C<sub>4</sub>H<sub>10</sub>
- B) C<sub>4</sub>H<sub>9</sub>OH
- C) C<sub>2</sub>H<sub>5</sub>OH
- D) C<sub>3</sub>H<sub>8</sub>

**(ECC01-0024M)**

- Which of the following contains the same number of molecules as 9g of water?

- A) 2g of hydrogen gas
- B) 14g of nitrogen gas
- C) 32g of oxygen gas
- D) 44g of carbon dioxide

(ECC01-0025H)

- An element E forms a hydride  $\text{EH}_3$  which contains 90.0% of E, by mass. What is the relative atomic mass of E?  
A) 27  
B) 87  
C) 30  
D) 90



Answers Key	
1	B
2	B
3	D
4	C
5	D
6	D
7	B
8	A
9	C
10	A
11	B
12	B
13	B
14	C
15	C
16	D
17	A
18	D
19	C
20	B
21	A
22	C
23	C
24	B
25	A

ChaaJao





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**Chaaajao**