

Total questions in exam: 25 | Answered: 0

## Question No. 24

What is the coefficient of chlorine gas after balancing the following equation?
$+\mathrm{Fe}(\mathrm{s})+{ }_{-} \mathrm{Cl}_{2}(\mathrm{~g}) \rightarrow$ _ $\mathrm{FeCl}_{3}(\mathrm{~s})$

3
2

- 4
- 1


Question No. 19
The ionization energy of silicon is lower than the ionization energy of $\qquad$sodiumphosphorusaluminummagnesium


Total questions in exam: $\mathbf{2 5}$ | Answered: 0

Question No. 22

Solid aluminum and gaseous oxygen react in a combination reaction to produce $\mathrm{Al}_{2} \mathrm{O}_{3}$ $4 \mathrm{Al}(\mathrm{s})+3 \mathrm{O}_{2}(\mathrm{~g}) \rightarrow 2 \mathrm{Al}_{2} \mathrm{O}_{3}(\mathrm{~s})$
The maximum amount of $\mathrm{Al}_{2} \mathrm{O}_{3}$ that can be produced from 2.5 g of Al and 2.5 g of $\mathrm{O}_{2}$ is $\qquad$ g.
4.7
7.4
5.3
9.4


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## Question No. 21

What substance is the reducing agent in the following redox reaction?

$$
\mathrm{Zn}(s)+\mathrm{Cu}^{2+}(a q) \rightarrow \mathrm{Zn}^{2+}(a q)+\mathrm{Cu}(s)
$$

$\mathrm{Zn}^{2+}$
$\mathrm{Cu}^{2+}$
Zn
Cu

## Question No. 20

## The chemical formula of the compound $\mathrm{fi}_{\mathrm{i}}$

- $\mathrm{MgCl}_{2}$
- $\mathrm{Mg}_{2} \mathrm{Cl}$
- MgCl



## Total questions in exam: 25 |Answered: 8

## Question No. 3

The ionization energy of beryllium is higher than the ionization energy of

O boron

- lithium
carbon
nitrogen

B

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Question No. 8
All of the following elements occurs naturally as diatomic molecuchlorine
fluorineneoniodine


## Question No. 7

What volume ( mL ) of a 3.45 M lead nitrate solution must be diluted to make 450 mL of 0.99 M solution of lead nitrite?
O. 129 mL
$\bigcirc 101 \mathrm{~mL}$

- 109 mL
- 56 mL



## Question No. 6

When dissolved in water, $\qquad$
can make an aqueous solution that conducts electricity.
$\mathrm{C}_{8} \mathrm{H}_{18}$
$\mathrm{CH}_{3} \mathrm{OCH}_{3}$
sugar
ionic salt


In the reaction below, what is the theoretical yield in moles for NO when 3 moles of $\mathrm{NH}_{3}$ react with 3 moles of $\mathrm{O}_{2}$ ?
$4 \mathrm{NH}_{3}+5 \mathrm{O}_{2} \rightarrow 4 \mathrm{NO}+6 \mathrm{H}_{2} \mathrm{O}$
2.4 mol

- 2.8 mol
- 2.6 mol
3.0 mol



## The type of bond in $\mathrm{I}_{2}$ is a (an) ......bond

O Metallic
O Polar covalent
O Nonpolar covalent
$\bigcirc$ Ionic

Question No. 19

The molarity $(M)$ of an aqueous solution containing 22.5 g of sucrose $\left(\mathrm{C}_{12} \mathrm{H}_{22} \mathrm{O}_{11}\right)$ in 35.5 mL of solution is $\qquad$ .

- 0.0657
- 3.52
- 1.85
0.104


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## Question No. 3

The ionization energy of beryllium is higher than the ionization energy of

O boron

- lithium
carbon
nitrogen


Use the periodic table to answer the following question: The formula $\mathrm{CCl}_{4}$ has a molar mass of $\mathrm{g} / \mathrm{mol}$.

- 140
- 150

146

- 154



## The most correct name for the compound $\mathrm{NI}_{3}$ is:

O mononitrogen triiodide
O nitrogen iodide
Otriodo nitrogen
nitrogen triiodide


What is the final molarity of $\mathrm{HNO}_{3}$ solution, if 300 mL of $2 \mathrm{M} \mathrm{HNO}_{3}$ was diluted to a final volume of 0.2 L ?
3.0 M
5.0 M
. 4.0 M
6.0 M


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## Question No. 23

Based on Lewis dot structure, the number of shared electrons in $I$
$\bigcirc 2$
264

- 8

The number of $\mathrm{CO}_{2}$ molecules that are produced from burning of 57.11 g of $\mathrm{C}_{8} \mathrm{H}_{18}$ (Molar mass $=114.22 \mathrm{~g} / \mathrm{mol}$ ) according to the following equation:

$$
2 \mathrm{C}_{8} \mathrm{H}_{18(\mathrm{l})}+25 \mathrm{O}_{2(\mathrm{~g})} \rightarrow 16 \mathrm{CO}_{2(\mathrm{~g})}+18 \mathrm{H}_{2} \mathrm{O}(\mathrm{~g})
$$

- 8 molecules.
- 16 molecules.
- $2.41 \times 10^{24}$ molecules.
$6.02 \times 10^{23}$ molecules.


## Total questions in exam: 25

## Question No. 25

## The correct name for the acid HBr is

hydrobromic hydrogen bromide hydrogen bromate hydrogen bromine


## Question No. 22

How many moles and how many atoms of zinc $(\mathrm{Zn})$ are in a sample weighing 34.9 g ?
$0.533 \mathrm{~mol}, 8.85 \times 10^{-25}$ atoms
$1.87 \mathrm{~mol}, 3.10 \times 10^{-24}$ atoms
$0.533 \mathrm{~mol}, 3.21 \times 10^{23}$ atoms
$1.87 \mathrm{~mol}, 1.13 \times 10^{24}$ atoms

What is the molecular formula of a compound that has a molar mass of $300 \mathrm{~g} / \mathrm{mol}$ and its empirical formula is $\mathrm{CH}_{2} \mathrm{O}$ ?

- $\mathrm{C}_{2} \mathrm{H}_{4} \mathrm{O}_{2}$
$-\mathrm{C}_{4} \mathrm{H}_{8} \mathrm{O}_{4}$
- $\mathrm{C}_{3} \mathrm{H}_{6} \mathrm{O}_{3}$
- $\mathrm{C}_{10} \mathrm{H}_{20} \mathrm{O}_{10}$



## Question No. 22

Which of these substances gives a weak electrolyte when dissolved in water?

- weak base

O ionic salt

- strong acid
- strong base


Question No. 14
Find out the molecular formula of a compound that has a molar mass of $138.0 \mathrm{~g} / \mathrm{mol}$ and an empirical formula of $\mathrm{NO}_{2}$.

- $\mathrm{N}_{3} \mathrm{O}_{6}$
$-\mathrm{NO}_{2}$
- $\mathrm{N}_{2} \mathrm{O}_{3}$
- $\mathrm{N}_{2} \mathrm{O}_{4}$



## Question No. 20

The name of the chemical compound $\mathrm{FeCO}_{3}$ is:
O iron carbonate
O iron(II) carbonate
O iron(III) carbonate

- iron(I) carbonate



## Question No. 20

## The name of the chemical compound $\mathrm{FeCO}_{3}$ is:

iron carbonateiron(II) carbonateiron(III) carbonate- iron(I) carbonate



## Question No. 22

Which of these substances gives a weak electrolyte when dissolved in water?
(3) weak base
(1) ionic salt

-     - strong acid
- strong base


Find out the molecular formula of a compound that has a molar mass of $138.0 \mathrm{p} / \mathrm{mol}$ and an empirical formula of $\mathrm{NO}_{2}$.

- $\mathrm{N}_{3} \mathrm{O}_{6}$
$-\mathrm{NO}_{2}$
- $\mathrm{N}_{2} \mathrm{O}_{3}$
- $\mathrm{N}_{2} \mathrm{O}_{4}$



## Question No. 15

The molar mass of $\mathrm{Ca}_{3}\left(\mathrm{PO}_{4}\right)_{2}$ is equal to:
O $310 \mathrm{~g} / \mathrm{mol}$
O $250 \mathrm{~g} / \mathrm{mol}$
O $134 \mathrm{~g} / \mathrm{mol}$
O $215 \mathrm{~g} / \mathrm{mol}$

Question No. 19
Calculate the molar mass of $\mathrm{Fe}_{3}\left(\mathrm{PO}_{4}\right)_{2}$.
(1. $262.5 \mathrm{~g} / \mathrm{mol}$
(1) $525.1 \mathrm{~g} / \mathrm{mol}$
(1) $237.6 \mathrm{~g} / \mathrm{mol}$
(1) $357.5 \mathrm{~g} / \mathrm{mol}$


The number of $\mathrm{CO}_{2}$ molecules that are produced from burning of 57.11 g of $\mathrm{C}_{8} \mathrm{H}_{4}$ (Molar mass $=114.22 \mathrm{~g} / \mathrm{mol}$ ) according to the following equation:

$$
2 \mathrm{C}_{8} \mathrm{H}_{18(\mathrm{l})}+25 \mathrm{O}_{2(\mathrm{k})} \rightarrow 16 \mathrm{CO}_{2(\mathrm{~g})}+18 \mathrm{H}_{2} \mathrm{O}(\mathrm{~g})
$$

- $2.41 \times 10^{24}$ molecules.
- $6.02 \times 10^{23}$ molecules.
- 8 molecules.
- 16 molecules.



## Question No. 7

The substance that causes the oxidation of another substance is called

O cathode
O reducing agent

- anode
oxidizing agent
(لأنه مغروض أختار اختزال بس مو موجود بـالخياريـ فالعامل المؤكسـد هو نفسـه اللي صـارله اخنتزال

For a given reaction
$\mathrm{V}_{2} \mathrm{O}_{5}(\mathrm{~s})+5 \mathrm{Ca}(\mathrm{l}) \rightarrow 2 \mathrm{~V}(\mathrm{l})+5 \mathrm{CaO}(\mathrm{s})$
When 10 moles of $\mathrm{V}_{2} \mathrm{O}_{5}$ are mixed with 10 moles of Ca , which is the limiting reactant according
to the above equation?

- $\mathrm{V}_{2} \mathrm{O}_{5}$
- CaO
- Ca
- V

The number of $\mathrm{CO}_{2}$ molecules that are produced from burning of 57.11 g of $\mathrm{C}_{8} \mathrm{H}_{18}$ (Molar mass $=114.22 \mathrm{~g} / \mathrm{mol}$ ) according to the following equation: $2 \mathrm{C}_{8} \mathrm{H}_{18(\mathrm{l})}+25 \mathrm{O}_{2(\mathrm{~g})} \rightarrow 16 \mathrm{CO}_{2(\mathrm{~g})}+18 \mathrm{H}_{2} \mathrm{O}_{(\mathrm{g})}$
$2.41 \times 10^{24}$ molecules.
$6.02 \times 10^{23}$ molecules.

- 8 molecules.

16 molecules.

As you move from the top to the bottom of the periodic table:

- ionization energy increases and atomic radius decreases
(1) ionization energy decreases and atomic radius decreases
(1) ionization energy increases and atomic radius increases
- ionization energy decreases and atomic radius increases
(1) reducing agent
- anode
oxidizing agent


## Question No. 2

White the name for FeSiron(I) sulfideiren(II) sulfate
iron(I) sulfate
iron(II) sulfide

## Question No. 7

The substance that causes the oxidation of another substance is called
cathode
reducing agent
anode
oxidizing agent


## Total questions in exam: 25

## Question No. 25

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## Question No. 24

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## Question No. 23

Based on Lewis dot structure, the number of shared electrons in $\mathbf{N}_{2}$ molecule is $\qquad$
$\cup 2$
6
$\because$
8


## The type of bond in $\mathrm{I}_{2}$ is a (an) .......bond

O Metallic
O Polar covalent
O Nonpolar covalent
$\bigcirc$ Ionic

## The most correct name for the compound $\mathrm{NI}_{3}$ is:

O mononitrogen tribodide
O nitrogen iodide
$\checkmark$ triiodo nitrogen
$\checkmark$ nitrogen triodide

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All of the following elements occurs naturally as diatomic molecu
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fluorineneoniodine


Question No. 6
When dissolved in water, $\qquad$ can make an aqueous solution that conducts electricity.
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## Question No. 3

The ionization energy of beryllium is higher than the ionization energy of

Oboron

- lithium
carbon
nitrogen


Question No. 6

What coefficient is placed in front of $\mathrm{O}_{2}$ to complete the balancing of the following equation?
$\mathrm{C}_{5} \mathrm{H}_{8}+$ ? $\mathrm{O}_{2} \rightarrow 5 \mathrm{CO}_{2}+4 \mathrm{H}_{2} \mathrm{O}$

Household sugar, sucrose, has the molecular formula $\mathrm{C}_{12} \mathrm{H}_{22} \mathrm{O}_{11}$. What is the mass percent of carbon in sucrose?
$514 \%$
$628 \%$
$65 \%$
$421 \%$

## Question No. 4

What is the term for the shared valence electrons in a covalent molecule?core electronsnonbonding electronsbonding electrons

- Ione pair electrons


## Question No. 1

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What is the oxidation number of iron in }\mp@subsup{\textrm{Fe}}{2}{}\mp@subsup{\textrm{O}}{3}{}\mathrm{ ?
0+3
```

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## Question No. 2

Wite the name for FeS
iron(I) sulfide

- iron(II) sulfate
- iron(I) sulfate
- iron(II) sulfide


