Chemistry .. MCQs .. Chapter 1			
- the study of matter and its changes is			
A	Chemistry	B	Biology
C	Mathematics	D	Sociology
- which of the following determine how matters behave?			
A	Molecules only	B	Atoms only
C	Atoms and molecules	D	None of these
- which of the following binds to hemoglobin?			
A	Carbon dioxide	B	Carbon monoxide
C	Carbon trioxide	D	None of these
- which of the following does NOT bind to hemoglobin?			
A	Carbon dioxide	B	Carbon monoxide
C	Carbon trioxide	D	None of these
- submicroscopic particles constitute the building block of matter are			
A	Atoms	B	Molecules
C	Organs	D	DNA
- free atoms are …… in nature.			
A	Plenty	B	Multitude
C	Rare	D	Never exist
- atoms binds together to form			
A	Molecule	B	Oxygen
C	Compounds	D	All answers are correct
- matter is anything that			
A	Can breathe	B	Has volume
C	Has a mass	D	B & C
- which of the following is an example of matter?			
A	Light	B	Dust
C	Heat	D	All answers are correct
- which of the following is an example of matter?			
A	Air	B	Book
C	Vapor	D	All answers are correct
- matter can be classify according to its			
A	State	B	Composition
C	Both	D	None

- which of the following is a physical classifying of matter			
A	State classifying	B	Composition classifying
C	Atoms classifying	D	All answers are correct
- matter can be classified as			
A	Solid	B	Gas
C	Liquid	D	All answers are correct
- the state of matter change (gas>liquid>solid) with			
A	Increasing temperature	B	Decreasing temperature
C	Both are correct	D	Both are wrong
- in liquids, gases, solids atoms and molecules has			
A	Same structure	B	Different structure
C	Cannot be determined	D	Almost same structure
- atoms or molecules are packed closely to each other in ……. Matters.			
A	Solid and liquid	B	Solid and gas
C	Liquid and gases	D	all phases of
- atoms or molecules in pattern with long-range repeating order are called			
A	Amorphous	B	Crystalline
C	Solid matter	D	Both solid and liquid
- when atoms or molecules do NOT have a repeating order, we call it			
A	Amorphous	B	Crystalline
C	Solid matter	D	Both solid and liquid
- which of the following is an example of amorphous solid?			
A	Glass	B	Table salt
C	Diamond	D	All answers are correct
- which of the following is an example of crystalline solid?			
A	Glass	B	Table salt
C	Plastic	D	All answers are correct
- which of the following has fixed shape and fixed volume?			
A	Water	B	Ice
C	Vapor	D	Blood
- which of the following has regular three-dimensional pattern?			
A	Water	B	Plastic
C	Glass	D	Crystalline solids
- a matter can be determined as liquid at			
A	Room temperature	B	Boiling temperature
C	Melting temperature	D	The dictionary

- Which of the following can be compressed?			
A	Oxygen	B	Water
C	Ice	D	All answers are wrong
- the process that change liquids to gases called			
A	Melting	B	Vaporizing
C	Condensing	D	Sublimation
- the process that change solids to gases called			
A	Melting	B	Vaporizing
C	Condensing	D	Sublimation
- which of the following can be physically separated?			
A	Pure substances	B	Elements
C	Compounds	D	Mixtures
- which of the following can NOT be physically separated?			
A	Pure substances	B	Elements
C	Compounds	D	All answers are correct
- oil and water solution is an example for ……. mixture.			
A	Homogeneous	B	Heterogeneous
C	Both	D	None
- chicken soup is an example of			
A	Homogenous mixture	B	Heterogenous mixture
C	Both	D	None
- vegetable soup is an example of			
A	Homogenous mixture	B	Heterogenous mixture
C	Both	D	None
- which of the following is pure substances			
A	Elements	B	Compounds
C	Both	D	None
- which of the following can be chemically separated?			
A	Elements	B	Compounds
C	Both	D	None
- in which case a sample represent the solution?			
A	Homogenous mixture	B	Heterogenous mixture
C	Both	D	None
- in which case a sample does NOT represent the solution?			
A	Homogenous mixture	B	Heterogenous mixture
C	Both	D	None

- mixtures are			
A	Separable	B	Inseparable
C	Cannot be determined	D	All answers are wrong
- physical changes can alter only the			
A	Appearance	B	State
C	Composition	D	A and B
- atoms or molecules do NOT change their identity during			
A	Physical change	B	Chemical change
C	Adaptational change	D	All answers are correct
- rusting and burning are			
A	Physical changes	B	Chemical changes
C	Adaptational changes	D	All answers are correct
- boiling of water is a			
A	Physical change	B	Chemical change
C	Adaptational change	D	All answers are correct
- chemical changes can alter the			
A	Appearance	B	State
C	Composition	D	All answers are correct
- one evidence of chemical change is			
A	Bubbles	B	Permanent color change
C	Light	D	All answers are correct
- which of the following is an example of physical change			
A	Dry ice subliming	B	Sugar dissolving
C	Propane gas burning	D	A and B
- which of the following is an example of chemical change			
A	Dry ice subliming	B	Sugar dissolving
C	Propane gas burning	D	A and B
- during ……. change, atoms rearrange			
A	Chemical	B	Physical
C	Biological	D	None
- the bleaching of hair with hydrogen peroxide is a			
A	Chemical change	B	Physical change
C	Both	D	None
- the forming of frost on a cold night is a			
A	Chemical change	B	Physical change
C	Biological	D	None

- which of the following is a physical property?			
A	Melting point	B	density
C	Color	D	All answers are correct
- which of the following is a chemical property?			
A	Flammability	B	Corrosiveness
C	Toxicity	D	All answers are correct
- which of the following is a chemical property?			
A	Inflammable	B	Viscosity
C	Malleability	D	Ductility
- which of the following is a physical property?			
A	Flammable	B	Inertness
C	Basicity	D	Explosiveness
- what is the opposite of melting?			
A	Freezing	B	Vaporizing
C	Sublimating	D	Temperature
- cooking an egg is			
A	Physical change	B	Chemical change
C	Both	D	None
- dissolving of sugar in water is			
A	Physical change	B	Chemical change
C	Both	D	None
- dissolving of salt in water is			
A	Physical change	B	Chemical change
C	Both	D	None
- "the capacity to do work" is the definition of			
A	Work	B	Energy
C	Movement	D	Pushing
- when a force acts through a distance			
A	Work will be done	B	Energy will be done
C	Work will be gained	D	Energy will be gained
- the potential energy results from the matter's			
A	Position or movement	B	Movement or composition
C	Position or composition	D	None of these
- the kinetic energy results from the matter's			
A	Position	B	Motion
C	Composition	D	None of these

- energy can be			
A	Created	B	Destroyed
C	Both created and destroyed	D	Converted from one form to another
- energy cannot be			
A	Created	B	Destroyed
C	Both created nor destroyed	D	Converted from one form to another
- the two most common unit systems are			
A	Metric system and English system	B	Metric system and CGS system
C	SI system and CGS system	D	KSA system and USA system
- most of the world use the			
A	Metric system	B	English system
C	CGS system	D	KSA system
- the international system of units (SI) is based on			
A	The metric system	B	The English system
C	Both	D	None
- (second) is the unit of time in the			
A	The metric system	B	The English system
C	Both	D	None
- the volume unit in the metric system is			
A	Liter (L)	B	Cubic meter (m^3)
C	Both	D	None
- (20in) is equal to "2.54cm = 1in"			
A	50.8 in	B	508 m
C	0.508 m	D	508 cm
- convert (50000g) to SI system unit of mass			
A	50000kg	B	50g
C	50kg	D	5Gg
- the measure of the quantity of matter, is			
A	Weight	B	Volume
C	Mass	D	Gravity
- temperature scale in the metric system is			
A	Celsius	B	Kelvin
C	Rankine	D	Fahrenheit
- the boiling point of water in the Fahrenheit scale is			
A	212°F	B	100°F
C	373°F	D	0°F

- the absolute zero in the Fahrenheit scale is			
A	-459°F	B	100°F
C	373°F	D	0°F
- convert 220°F to °C			
A	104.44 °C	B	140 °C
C	10.44 °C	D	14 °C
- convert 40°C to °F			
A	104 °F	B	140 °F
C	40 °F	D	32.045 °F
- convert 28K to °C			
A	245 °C	B	-245 °C
C	301 °C	D	209 °C
- convert 62°C to K			
A	-211K	B	211K
C	335K	D	365K
- convert 55°F to kelvin			
A	286K	B	-260K
C	260K	D	No relation
- which of the following increase the size of a unit			
A	Deci	B	Nano
C	Mega	D	Femto
- which of the following decrease the size of a unit			
A	Peta	B	Femto
C	Giga	D	Tera
- Density compares the…… of an object to its……			
A	Volume, length	B	Length, volume
C	Mass, volume	D	Volume, mass
- a solution has a density of 1.22g/mL. find the volume if m= 900kg (1mL=1cm^3)			
A	0.73cm^3	B	737.7cm^3
C	0.73g	D	737.7g
- 4.34g is the same mass as			
A	434μg	B	4340mg
C	43.4cg	D	434kg
- how many minutes are in 22.8h?			
A	13.68min	B	1368min
C	82080min	D	82.080min

Chemistry .. MCQs .. Chapter 2			
- matter is neither created nor destroyed in a chemical reaction, but transform from one form to another. this is the definition of			
A	Law of definite proportions	B	Law of multiple proportion
C	Law of conservation of matter	D	Law of conservation of energy
- total mass of used reactants _____ total mass of products produced			
A	More than	B	Less than
C	Equal to	D	Equal or more than
- total number of reactant atoms _____ total number of product atoms			
A	More than	B	Less than
C	Equal to	D	Equal or more than
- if the reactants' mass ($H_2O + Na$) is 18.68g, the mass of products will be			
A	12.45g	B	18.68g
C	47.12g	D	Cannot be determined
- law of conservation of mass was found out by			
A	Jozeph Prust	B	Antonie Lavoisir
C	James Chadwick	D	Jhon Dalton
- law of definite proportion was found out by			
A	Jozeph Prust	B	Antonie Lavoisir
C	James Chadwick	D	Jhon Dalton
- water samples from different sources are follow_____			
A	Law of definite proportions	B	Law of multiple proportion
C	Law of conservation of matter	D	Law of conservation of energy
- the reaction between Fe and O is follow _____			
A	Law of definite proportions	B	Law of multiple proportion
C	Both	D	None
- Dalton proposes that an element's atoms are identical in_____			
A	Size	B	Chemical properties
C	Mass	D	All of these
- the scientist who discover the electrons and determine its charge is			
A	J.J. Thomson	B	Antonie Lavoisir
C	James Chadwick	D	Jhon Dalton
- Cathode ray tube experiment was done by			
A	J.J. Thomson	B	Milickan
C	James Chadwick	D	Jhon Dalton

- Oil drop experiment was done by			
A	J.J. Thomson	B	Robert Milickan
C	James Chadwick	D	Jhon Dalton
- Who is the scientist who determined the mass and charge of electrons			
A	J.J. Thomson	B	Robert Milickan
C	James Chadwick	D	Jhon Dalton
- the gold foil experiment was done by			
A	J.J. Thomson	B	Milickan
C	Rutherford	D	Dmitri Mendeleev
- the gold foil experiment led to the discovery of			
A	The nucleus	B	The electrons
C	The cell	D	The elements
- which of the following is a subatomic particle?			
A	Proton	B	Electron
C	Neutron	D	All of them
- which of the following is right about Protons?			
A	Positively charged	B	Negatively charged
C	Located in the atom's empty space	D	All answers are right
- which of the following is right about Electrons?			
A	Positively charged	B	Negatively charged
C	Located in the atom's nucleus	D	All answers are right
- which of the following is right about Neutrons?			
A	Positively charged	B	Negatively charged
C	Located in the atom's nucleus	D	All answers are right
- neutron was the last discovered particle in the atom because_____			
A	It's neutral (has no charge)	B	It's invisible
C	It's smaller than the electron	D	All answers are correct
- the atomic number is the number of _____ in the atom.			
A	Electrons	B	Neutrons
C	Protons	D	The sum of them
- the fingerprint of an element is its_____			
A	Atomic number	B	Atomic weight
C	Electrons number	D	Name
- an element's symbol has _____ letters.			
A	One or Two	B	One or more
C	More than two	D	Only one

- isotopes are identified by their			
A	Atomic number	B	Atomic mass
C	Elements	D	All are correct
- neutral atoms will have the same number of			
A	Protons as Neutrons	B	Neutrons as Electrons
C	Electrons as Protons	D	Protons, electrons, and neutrons
- which of the following are isotopes			
A	$C_6^{12}.C_7^{12}.C_8^{12}$	B	$C_6^{12}.C_6^{12}.C_6^{12}$
C	$C_6^{12}.C_6^{13}.C_6^{14}$	D	$C_6^{12}.O_6^{12}.Fe_6^{12}$
- when calculating the atom's mass, we can neglect the _____ mass			
A	Protons	B	Neutrons
C	Electrons	D	Electrons and protons
- when calculating the atom's charge, we can neglect the _____ charge			
A	Protons	B	Neutrons
C	Electrons	D	Electrons and protons
- for $(F_{26}^{56})^{+3}$ find the number of Protons (P), Electrons (e), and Neutrons (N)			
A	P= 26, e= 23, N= 30	B	P= 26, e= 26, N= 30
C	P= 26, e= 23, N= 26	D	P= 56, e= 23, N= 30
- which of the following is right about neutral atoms?			
A	Electrons = protons	B	Electrons = neutrons
C	Neutrons = protons	D	Electrons > protons
- when neutral atoms lose electrons, it become_____			
A	Cation	B	Anion
C	Both	D	None
- negatively charged atoms are called			
A	Cation	B	Anion
C	Both	D	None
- Mendeleev arrange the elements in order of increasing _____			
A	Atomic number	B	Atomic mass
C	Properties	D	Alphabet
- in the modern table, elements are arranged from left to right in order of			
A	Increasing atomic number	B	Increasing mass number
C	Decreasing atomic number	D	Decreasing mass number
- in the modern table, each vertical column is called			
A	Period	B	Group/family
C	Main-group	D	Transition elements

- in the modern table, each horizontal row is called			
A	Period	B	Group/family
C	Main-group	D	Transition elements
- which of the following properties isn't a metal property?			
A	Reflective surface	B	Conduct heat and electrical current
C	Lose electrons and form cations	D	Can be found in all three states
- which of the following isn't true about nonmetals property?			
A	Poor conductors of heat	B	Gain electrons to become anions
C	Solids are brittle	D	Ductility
- which of the following can exhibit properties of metals and/or nonmetals?			
A	Nobel gases	B	Transition metals
C	Actinides	D	Metalloid/semimetal
- metalloids are usually act as			
A	Metals	B	Nonmetals
C	Actinides	D	Lanthanides
- group 1A elements are called			
A	Halogens	B	Nobel gases
C	Alkali metals	D	Alkali earth metals
- group 2A elements are called			
A	Halogens	B	Nobel gases
C	Alkali metals	D	Alkali earth metals
- when atoms lose or gain electrons they form			
A	Elements	B	Ions
C	Isotopes	D	None
- the letter A in 3A represent _____			
A	Transition group	B	Main group
C	Ions	D	Isotopes
- the atomic mass for each element is represented by			
A	Its highest isotope atomic mass	B	Its lowest isotope atomic mass
C	Its isotopes average atomic mass	D	Its property
- how many grams of CO_2 are in $6.75x10^{30}$ molecules?			
A	$1.1x10^{7}$ g	B	$4.8x10^{8}$ g
C	4.93 g	D	110 g
- how many grams are in 10^{30} molecules of Iodine?			
A	$4.2x10^{8}$ g	B	$1.6x10^{6}$ g
C	256 g	D	$6.022x10^{23}$ g

- 0.100 mole of lithium weighs			
A	3 g	B	0.694 g
C	0.3 g	D	6.94 g
- how many moles and atoms of Zinc are in a sample weighing 34.9g ?			
A	0.533 mole, 8.85×10^{-25} atoms	B	1.87 mole, 1.13×10^{24} atoms
C	0.533 mole, 3.21×10^{23} atoms	D	1.87 mole, 1.13×10^{-24} atoms
- each group/column's elements have			
A	Similar properties	B	Different properties
C	Nothing in common	D	Same atomic mass
- each period/row's elements have			
A	Similar properties	B	Different properties
C	Nothing in common	D	Same atomic mass
- Na, P this pair of elements have			
A	Similar properties	B	Different properties
C	Nothing in common	D	Same atomic mass
- how many protons, electrons, and neutrons in an oxygen ion?			
A	P= 8, e= 10, N= 8	B	P= 8, e= 8, N= 8
C	P= 8, e= 6, N= 8	D	P= 8, e= 8, N= 6
- Germanium has these properties EXCEPT			
A	Solid at room temperature	B	Semiconductor of electricity
C	Is a metalloid	D	Insulator
- which of the following can be easily broken?			
A	Nickle	B	Technetium
C	Bromine	D	Potassium
- which of the following is right about GOLD			
A	Semiconductor	B	Can be found in all three states
C	Gain electrons to become anion	D	Can be shaped
- energy levels and sublevels fill from lowest energy to high, this is			
A	Hound principal	B	Aufbau principal
C	Pauli principal	D	None
- which of the following configurations is correct			
A	$1s\ 2s\ 3s\ 4s\ 5s$	B	$1s\ 2s\ 2p\ 3p$
C	$1s\ 2s\ 2p\ 3s\ 3p\ 4s$	D	$1s\ 2p\ 3d\ 4f$
- the valence electrons represent the _____			
A	Group's number	B	Period's number
C	Protons' number	D	Neutrons' number

- the periodic number is the same as the _____ number			
A	Energy level	B	Orbital type
C	Valence electrons	D	Protons
- which of the following is the right configuration for lithium?			
A	$1s^2 2s^2 2p^1$	B	$1s^2 2s^1$
C	$1s^2 2p^1$	D	$1s^2 2s^2 2p^6$
- ↑↓ ↑↓ ↑↓ ↑↓ **in this figure arrows represent**			
A	Neutrons	B	Atoms
C	Electrons	D	Protons
- which of the following violate Hund's rule?			
A	↑↓ ↑↓ ↑↓ ↓	B	↑↓ ↑↓ ↑↓
C	↑↓ ↑↓ ↑↓ ↑↑	D	↓↑ ↑↓ ↑ ↑↓
- which of the following is a violation for Pauli's rule?			
A	↑↓ ↑↓ ↑↓ ↓	B	↑↓ ↑↓ ↑↓
C	↑↓ ↑↓ ↑↓ ↑↑	D	↓↑ ↑↓ ↑ ↑↓
- for ($1s^2 2s^2 2p^6\ 3s^2 3p^5$) the valence electrons are			
A	2	B	5
C	7	D	3
- valence electrons are responsible for			
A	Boiling	B	Making ions
C	The atom's behavior	D	All answers are correct
- which of the following is wrong			
A	↑↓ ↑ ↑ ↓ ↑	B	↑ ↑ ↑↓ ↑ ↑
C	↑ ↑ ↓ ↑ ↓↑	D	↓ ↑ ↑ ↑ ↑↑
↓ ↑ ↑↑ ↑ ↑ **This configuration violates _____ rule.**			
A	Huok	B	Pauli
C	Hound	D	Aufbau
- how many valence electrons are in (carbon)?			
A	3	B	2
C	5	D	4
- how many valence electrons are in (Al)?			
A	2	B	3
C	4	D	5
- which of the following has 8 valence electrons?			
A	Ar	B	Br
C	As	D	Ac

- for ions, electrons are added or removed to the			
A	Lowest energy level	B	Valence shell
C	S orbital type only	D	Nobel gases
- which of these elements' ions have fewer electrons than protons?			
A	Sr	B	Xe
C	Te	D	TI
- which of these elements has the smallest atomic radius?			
A	O	B	S
C	Se	D	Po
- which of these elements has the largest atomic radius?			
A	K	B	Ca
C	Ga	D	Ge
- the net positive charge that is attracting a particular electron is called			
A	The effective nuclear charge	B	The ionic radius
C	Ionization energy	D	Electron affinity
- Ion size _____ down the column.			
A	Decrease	B	Increase
C	Does not change	D	Not related
- cations are _____ the neutral atom.			
A	Same as	B	Larger than
C	Smaller than	D	Not related
- anions are _____ the neutral atom.			
A	Same as	B	Larger than
C	Smaller than	D	Not related
- the energy heeded to remove an electron from an atom or ion is called			
A	The effective nuclear charge	B	The ionic radius
C	Ionization energy	D	Electron affinity
- which of the following is NOT correct			
A	Li atom is larger than Li ion	B	Fr atom is larger than Fr ion
C	At ion is smaller than At atom	D	Br atom is smaller than Br ion
- which of the following orders is correct for IE?			
A	Mg > Si > P > Cl	B	Cl > P > Si > Mg
C	Si > P > Cl > Mg	D	P > Si > Mg > Cl
- which of the following orders is correct for IE?			
A	N < P < As < Bi	B	Bi > As > P > N
C	Bi < As < P < N	D	As > P < N < Bi

- the metallic character _____ across a period.			
A	Increase	B	Decrease
C	Stay the same	D	Undefined
- the willingness to accept electrons into the valence shell is called			
A	The effective nuclear charge	B	The ionic radius
C	Ionization energy	D	Electron affinity
- which of the following elements is the most stable one?			
A	Ba	B	Pb
C	Po	D	Rn
- which of the following elements is the most stable one?			
A	H	B	Li
C	Na	D	K
- which group/family has the lowest EA?			
A	Halogens	B	Alkali metals
C	Noble gases	D	Alkaline earth metals

PICs may help you: -