1) The name of the compound whose formula is $\mathrm{Ca}_{3} \mathrm{~N}_{2}$ is
a) calcium nitrate
b) nitrogen calsite
c) calcium nitride
d) calcium nitrite
2) What is formed when an atom loses electrons?
a) covalent bond
b) a molecule
c) different element
d) positive ion
3) A type of chemical bond which often formes between two nonmetals is
a) covalent
b) ionic
c) metallic
d) molecular bond
4) An element which has the same valence electron configuration as tin $(\mathrm{Sn})$ is
a) Si
b) Au
c) Ca
d) Xe
5) Which of the following is not an ionic compound? $?_{2}$
a) NaBr
b) CaH 2
c) H 2 S
d) BaO
6) The atomic mass of the element is the number of:
a) protons in its nucleus
b) neutrons in its nucleus
c) protons and neutrons in the nucleus
d) electrons in the shell
7) A neutral atom contains 5 electrons and 5 protons. This must be an atom of
a) could be several atoms
b) boron
c) nitrogen
d) neon
8) what type of bond exists in a molecule of ammonia?
a) ionic
b) covalent polar
c) covalent nonpolar
d) metallic bonds
9) When two atoms equally share two electrons this bond is
a) polar and double
b) polar and single
c) nonpolar and single
d) ionic
10) The number of oxygen atoms in the correct formula of alluminium oxide is:
a) 0
b) 1
c) 2
d) 3
11) A calcium ion
a) has on electron in its outer energy level
b) has two electrons in its outer energy level
c) has a filled outer energy level
d) lacks tow electrons of having noble gas configuration
12) The atoms with the same number of electron shells are in the same
a) period
b) group
c) column
d) zone
13) How many sublevels are present in the third energy level?
a) 2
b) 3
c) 4
d) 10
14) Which of the following designates the sublevels that exist in the energy level 2 ?
a) $\mathrm{s}, \mathrm{p}$
b) $\mathrm{p}, \mathrm{f}$
c) $s, p, d$
d) $s, p, d, f$
15) The atom of which element has two unpaired electrons in the $2 p$ sublevel?
a) N
b) C
c) Be
d) F
16) Which of the following combinations represents an ion with charge +1 and mass number 85 ?
a) 48 neutrons, 37 protons, 37 electrons
b) 48 neutrons, 37 protons, 36 electrons
c) 48 neutrons, 36 protons, 37 electrons
d) 48 neutrons, 35 protons, 36 electrons
17) An element with seven electrons in the outer level would be a ...
a) metal
b) metalloid
c) nonmetal
d) nitrogen
18) In which series the elements have metallic character:
a) $\mathrm{Br}, \mathrm{P}$
b) $\mathrm{Ba}, \mathrm{Cs}$
c) $\mathrm{Al}, \mathrm{S}$
d) $\mathrm{B}, \mathrm{Cs}$
19) Atoms of the chemical elements are characterized by the number of ...
a) elemental forms
b) electrons
c) protons
d) neutrons
20) When they combine with nonmetal atoms, metal atoms tend to
a) gain electrons to become negative ions
b) lose electrons to become positive ions
c) remain electrically neutral with a charge of zero
d) any of the above depending on the circumstances
