

Chemistry question- SET - 2

- Which of the following has a zero bond order?
 - He₂
 - F₂
 - N₂
 - H-F
- For a cyclic process, the change in internal energy of the system is
 - always +ve
 - always -ve
 - equal to zero
 - equal to infinity
- In dsp² hybridization, the new orbitals have the following geometry
 - square planar
 - tetrahedral
 - trigonal
 - trigonal bipyramidal
- Grignard reagent gives primary alcohol with
 - HCHO
 - CH₃CHO
 - ethylene oxide
 - hydrogen
- Which of the following is not a buffer solution ?
 - NH₄Cl+NH₄OH
 - NaOH+HCl
 - CH₃COONa+CH₃COOH
 - HCOONa+HCOOH
- A+B+C → Products is
 - unimolecular
 - trimolecular
 - bimolecular
 - termolecular
- The pH of a solution increases from 1 to 2. The concentration of H⁺ ions
 - decreases
 - increases
 - remains the same
 - becomes zero
- The compound that is not a Lewis acid is
 - BF₃
 - AlCl₃
 - BeCl₂
 - BaCl₂
- The reaction of ${}_1\text{H}^3$ and ${}_1\text{H}^2$ to form ${}_2\text{He}^4$ and a neutron is an example of
 - a fission reaction
 - a fusion reaction
 - both fission and fusion reaction
 - neither a fission or fusion reaction
- Which one of the following processes results in the formation of a new compound
 - dissolving common salt in water
 - heating water
 - heating platinum rod
 - heating iron rod

- 11 The element having no neutron in the nucleus of its atom is
- a) hydrogen
 - b) nitrogen
 - c) boron
 - d) helium
- 12 Which of the following species have three unpaired electrons?
- a) P^{3-}
 - b) Cr^{3+}
 - c) Cr^{2+}
 - d) Br
- 13 The empirical formula of alkyne is
- a) $\text{C}_n\text{H}_{2n+2}$
 - b) C_nH_{2n}
 - c) $\text{C}_n\text{H}_{2n-2}$
 - d) $\text{C}_n\text{H}_{2n+1}$
- 14 Which of the following rate law is 3rd order overall?
- a) $\text{rate} = k[\text{A}]^3[\text{B}]^1$
 - b) $\text{rate} = k[\text{A}]^3[\text{B}]^3$
 - c) $\text{rate} = k[\text{A}]^5[\text{B}]^2$
 - d) $\text{rate} = k[\text{A}]^1[\text{B}]^2$
- 15 Which compound is acidic in nature
- a) CH_4
 - b) benzene
 - c) C_2H_2
 - d) anilene
- 16 Which oxidation states is not shown by carbon in its compounds?
- a) +4
 - b) +1
 - c) 0
 - d) +2
- 17 At constant temperature, the pressure of the gas is reduced to one third, the volume
- a) reduces to one third
 - b) increases by three times
 - c) remains the same
 - d) can not be predicted
- 18 The units of R, the gas constant are
- a) $\text{erg k}^{-1}\text{mol}^{-1}$
 - b) $\text{cal k}^{-1}\text{mol}^{-1}$
 - c) $\text{joule k}^{-1}\text{mol}^{-1}$
 - d) all of these
- 19 An aqueous solution of NaCl in water has vapour pressure
- a) equal to that of water
 - b) more than that of water
 - c) less than that of water
 - d) none of these
- 20 Which of the following reduces carboxylic acid directly to primary alcohols?
- a) LiAlH_4
 - b) $\text{Na} + \text{C}_2\text{H}_5\text{OH}$
 - c) NaBH_4
 - d) H_2

Answer key of question set-2

1	a
2	c
3	d
4	a
5	b
6	b
7	a
8	d
9	b
10	d
11	a
12	c
13	c
14	d
15	c
16	b
17	b
18	d
19	c
20	a