Multiple Choice Questions

1) Organic compounds which contain carbon and hydrogen only are called:

a) Hydrocarbons
b) Alkanes
c) Olefins
d) Paraffins

2) Those hydrocarbons in which each carbon atom is sp^3 hybridized are called:

a) Unsaturated hydrocarbons
b) Saturated hydrocarbons
c) Both a & b
d) Olefins

3) Those hydrocarbons in which each carbon atom is sp^2 or sp hybridized are called:

a) Saturated hydrocarbons
b) Olefins
c) Unsaturated hydrocarbons
d) none of these

4) Non-benzenoid cyclic hydrocarbons are called:

a) alicyclic hydrocarbons
b) cyclopentene
c) Aromatic hydrocarbons
d) All of these

5) Benzenoid cyclic hydrocarbons are called:

a) alicyclic hydrocarbons
b) cyclopentene
c) Aromatic hydrocarbons
d) none of these

6) The substances which have carbon atoms C 18 to onward are:

a) Waxy solids b) liquids

c) Semi-solids d) both bands

7) Non-polar, insoluble in water and contains single bond between C-C are called:

a) Alkenes b) Alkanes

c) Alkynes d) both a & b

8) Which are inert toward acids, alkalis, oxidizing and reducing agents under normal condition:

a) Alkenes b) Paraffins

c) Alkanes d) both a & b

9) In which bond the electrons are very tightly held between the nuclei:

a) a-bond b) π-bond

c) ionic-bond d) both a & b

10) Those alkanes containing sp^3 hybridized C and H atoms connected by s bond is possible with a ring of 3 or more C atoms are called:

a) Aromatic hydrocarbons b) cycloalkanes

c) alicyclic hydrocarbons d) All of the above

11) The general formula of cycloalkanes is:

a) C_nH_{2n} b) C_nH_{2n+n}

c) C_nHn_{2n-n} d) $C_{n-1}H_{2n}$

12) As canal H atoms have very similar electronegativities and both the C-H and C-C bonds are non-polar thus cycloalkanes are:

a) Reactive b) Very reactive

c) Not reactive d) both a & b

13) Those substances which are soluble in water are called:

a) Polar compounds b) Non-polar compounds

c) Inert compounds d) isomers

14) Those substances which are not soluble in water are called:

a) Polar compounds b) Non-polar compounds

c) Inert compounds d) none of the above

15) Those compounds which are not reactive are called:

a) Inert compounds b) metallic compounds

c) Ionic compounds d) covalent compounds

16) The order of Halogen reactivity is:

a) F > Cl > I > Br b) F > Cl > Br > I

c) Cl > F > I > Br d) F > Br > Cl > I

17) The half arrow in the reaction mechanism shows the movement of:

a) Single electron
b) Double electron
c) Multiple electron
d) both a & b

18) The reaction in which there is loss of electrons or addition of oxygen is called:

a) Oxidation
b) Reduction
c) both a & b
d) None of the above

19) The reaction in which there is gain of electrons and loss of oxygen is called:

a) Oxidation
b) Reduction
c) Oxidation-reduction
d) both a & b

20) The compounds in which carbon atom is sp^2 hybridized and there is double bond between C-C are called:

a) Alkenes
b) Alkanes
c) Alkynes
d) Metalloids

21) A process in which a molecule of hydrogen is added to an alkene is called:

a) Acylation
b) Hydrogenation
c) Alkylation
d) both a& b

22) The removal of hydrogen halide is called:

a) Dehydrohalogenation
b) Dehydration
c) Hydration
d) Hydrogenation

23) The removal of water from a substance is called:

a) Hydration
b) oxidation
c) Dehydration
d) both a & b

24) Raney Nickel is prepared by treating a Ni-Al alloy with:

a) Caustic soda
b) Soda ash
c) Caustic potash
d) NaCl

25) The amount of heat evolved when one of an alkane is hydrogenated is called heat of:

a) Fusion
b) Hydrogenation
c) Hydration
d) None of these

26) Which process is used for the manufacture of vegetable ghee from vegetable oil:

a) Catalytic hydrogenation
b) Halogenation
c) Hydration
d) Hydrogenation

27) Markowinkov's rule is the addition of hydrogen halide in which alkene:

a) Symmetrical
b) Unsymmetrical
c) Hydrated
d) both a & b

28) In Markowinkov's rule the negative part of the adding reagent goes to that carbon which consist:

a) double bond
b) least number of hydrogen atoms

c) both a & b

d) None of these

29) The heat of hydrogenation of most alkene is about:

a) 160 KJ mole-I

b) 120 KJ mole-^{1} .

c) 170 KJ mole- I

d) 1 10 KJ mole-I

30) Addition of water. to any substance is called:

a) Hydration

b) Oxidation

c) Halogenation

d) None of these

31) Adding of halogen to alkane, alkynes and alkenes is called:

a) Reduction

b) Esterification

c) Hydration

d)Halogenation

32) Adding of hypohalous acid (HOX) is called:

a) Halohydration

b) Hydration

c) Halogenation

d)None of these

33) The formation of epoxides is called:

a) Ozonolysis

b) epoxidation

c) Hydration

d) Halogenation

34) Which are unstable compounds and are reduced directly on treatment with zinc and H_2O:

a) Ozonide
b) Halide
c) Ketones
d)Aldehydes

35) The process in which small molecules combine together to form large molecules is called:

a) Ozonolysis
b) Polymerization
c) Conjugation
d) Esterification

36) The phenomenon in which compounds have same molecular formula but different chemical structures is called:

a) Isomerism
b) Polymerization
c) Catalysis
d) both a & b

37) A carbon atom which is bonded to four different groups is called an:

a) Symmetric carbon
b) Asymmetric carbon
c) both a & b
d) None of these

38) The compounds in which the carbon atom is sp-hybridized and there is triple bond between C-C are:

a) Alkynes
b) Alkanes
c) Alkenes
d) both a & b

39) Kekule's structure failed to explain as to why:

a) Benzene is less reactive

b) It has less heat of formation

c) It has equal C-C bonds

d) It shows duel character i.e addition as well as substitution

e) All of the above

40) The possibility of different pairing schemes of valence electrons of atom is called:

a) Resonance structures b) Conjugation

c) Resonance energy d) both a & b

41) Those group which donate electrons toward the benzene ring at other and para positions are called:

a) Ortho and para directing groups b) Meta directing groups

c) both a & b d) None of the these

Answer

1)	a)	2)	b)	3)	c)	4)	a)
5)	c)	6)	a)	7)	b)	8)	d)
9)	a)	10)	b)	11)	a)	12)	c)
13)	a)	14)	b)	15)	a)	16)	b)
17)	a)	18)	a)	19)	b)	20)	a)
21)	b)	22)	a)	23)	c)	24)	a)

25)	b)	26)	a)	27)	b)	28)	c)
29)	b)	30)	a)	31)	d)	32)	a)
33)	b)	34)	a)	35)	b)	36)	a)
37)	b)	38)	a)	39)	e)	40)	a)
41)	a)						