FBQ1: Alkyl halides are converted into _____ by dehydrohalogenation
Answer: alkenes

FBQ2: The use of _____ as octane number enhancer is being curtailed for environmental reasons.
Answer: Tetraethyllead

FBQ3: In _____, fuel having a lower octane number is much more useful than those having a higher octane number.
Answer: diesel engine

FBQ4: Quality of diesel fuel is expressed in terms of a parameter called_____.
Answer: Cetane number

FBQ5: _____is given a cetane number 100
Answer: Hexadecane

FBQ6: Good quality diesel fuel required for modern diesel engine has cetane number greater than _____
Answer: 45

FBQ7: Boiling point of a covalent substance depends upon the_____ forces.
Answer: intermolecular

FBQ8: The function of hydroxide ion during dehydrohalogenation of alkyl halides is to abstract_____ from the carbon atom next to the halogen bearing carbon.
Answer: hydrogen

FBQ9: The _____ in a carbon chain with an odd number of carbon atoms lies on the same side whereas those in a carbon chain with an even number lie on the opposite side.
Answer: Terminal carbon atoms

FBQ10: Dehydration of alcohols which produce alkenes requires the presence of_____.
Answer: acid and heat

FBQ11: George Witting reported a method of synthesising alkenes from_____
Answer: Carbonyl compounds

FBQ12: A catalyst mixed with a selective inhibiting agent is called a _____ catalyst.
Answer: poisoned

FBQ13: The joining of the two alkyl groups from two molecules of alkyl halide with the lost of halogen occur in which method of preparation of alkanes. _____
Answer: wurtz

FBQ14: Preparation of alkanes from carboxylic acid is achieved by _____ method.
Answer: Kolbe’s electrolytic

FBQ15: Alkanes or cycloalkanes can be prepared by ____using platinum and palladium as a catalyst.
Answer: hydrogenation of unsaturated hydrocarbons

FBQ16: In Sabatier senderen’s reaction method, the hydrogenation of alkanes takes place in the presence of _____catalyst.
Answer: Nikel

FBQ17: Alkylmagnesium halide is also called_____
Answer: grignard reagent

FBQ18: In the first step of Wittig reaction, the nucleophilic reagent _____ reacts with primary or secondary alkyl halide to give phosphonium salt.
Answer: Triphenylphosphine

FBQ19: The starting material or primary reactant used for the preparation of Cyclopentanone is known as _____.
Answer: barium adipate

FBQ20: When an alkene reacts with borane, addition to the carbon-carbon double bond takes place to yield an _____
Answer: organoborane

FBQ21: _____ can also be carried out by reacting ethyne and Grignard reagent, followed by the action of an alkyl halide.
Answer: Alkylation

FBQ22: The common name for 1,3,5-trimethylbenzene is _____
Answer: Mesitylene

FBQ23: Alkanes undergo manly _____ reaction, which can be explained using free radical chain mechanism.
Answer: substitution

FBQ24: The chemical reactions which take place in the presence of light are called _____reactions
Answer: Photochemical

FBQ25: Halogenation of alkanes does not occur in the dark but in the presence of _____light.
Answer: UV

FBQ26: In the chain initiation step of halogenation of alkanes, the halogen molecule undergoes ____forming free radicals
Answer: homolysis

FBQ27: In the second step of halogenation of alkanes, the halogen molecule abstract a hydrogen atom from the alkane molecule thereby producing an_____
Answer: alkyl radical

FBQ28: Alkenes can be classified on the basis of the number of _____ present in the molecules
Answer: double bonds

FBQ29: Hydrocarbons containing two double bonds are called_____
Answer: diolefins

FBQ30: In the allene molecule the central carbon atom is sp hybridized while the terminal carbon atom is _____ hybridized
Answer: sp2

FBQ31: An alcohol is converted to alkene by _____
Answer: dehydration

FBQ32: In wittig reaction alkenes are synthesize from _____compounds
Answer: carbonyl

FBQ33: Alkenes are readily hydroxylated to form a dihydroxy compound (diol) appropriately known as _____
Answer: glycols

FBQ34: A reaction in which the double bond is completely broken and alkene molecule is converted into two smaller molecules is called_____
Answer: ozonolysis

FBQ35: Alkynes are divided into two, namely_____
Answer: Terminal and internal alkynes

MCQ1: Choose the correct option that best indicate the hybrid orbitals type, bond length and bond angle for methane.
Answer: SP2, 134 pm and 120o

MCQ2: Choose the correct option that best indicate the hybrid orbitals type, bond length and bond angle for acetylene?
Answer: SP, 120 pm and 180o

MCQ3: Grouping organic compounds based on their functional groups makes it easier to understand their_____?
Answer: Chemical properties only

MCQ4: -OH is a functional group for which organic compound?
Answer: Alcohol

MCQ5: What is the functional group of aldehyde?
Answer: —CHO

MCQ6: What is the functional group of esters?
Answer: RCOOR’

MCQ7: A functional group can be defined as?
Answer: An atom or group of atoms in a molecule which exhibit a characteristic chemical properties

MCQ8: The hydrocarbons are broadly classified into three namely___?
Answer: Aliphatic, alicyclic and aromatic

MCQ9: Benzene is an example of which type of hydrocarbon?
Answer: Aromatic hydrocarbon

MCQ10: When a compound has a carbon-nitrogen single bond it is called?
Answer: amine

MCQ11: When a compound has carbon-nitrogen double bond it is called?
Answer: Imine

MCQ12: When a compound has carbon-nitrogen triple bond it is called?
Answer: Nitrile

MCQ13: Amines are appropriately classified bases on the number of alkyl group attached to the nitrogen atom as;
Answer: Primary, secondary and tertiary amines

MCQ14: An alcohol in which the oxygen atom is replaced by a sulphur atom is called?
Answer: Thiol

MCQ15: An aromatic compound which contained side chain hydroxyl group is called?
Answer: Phenol

MCQ16: The earliest nomenclature of the organic compounds was based on?
Answer: Their origin or properties

MCQ17: What are isomers?
Answer: Are compounds having the same molecular formula but different structural presentation

MCQ18: n-butane means?
Answer: Straight chain butane

MCQ19: Iso-butane means?
Answer: Branched butane

MCQ20: The number of possible isomers of an alkane increases with increase in number of carbon atoms. True or false.
Answer: True

MCQ21: A member of a homologue series must poses a similar structure but differ in the ___ repeating unit.
Answer: —CH2—

MCQ22: 'Undecane' is a straight chain alkane containing how many carbon atoms?
Answer: 11

MCQ23: In _____ reaction, a conjugated diene is treated with an unsaturated compound called dienophile to yield a cyclic system.
Answer: Diels-Alder

MCQ24: The terminal alkynes on hydroboration give _____.
Answer: aldehydes

MCQ25: Reactions that lead to the attachment of alkyl group to a molecular fragment are called _____.
Answer: Alkylation reaction

MCQ26: _____ involves elimination of the halogen atom together with a hydrogen atom from an adjacent carbon atom.
Answer: Dehydrohalogenation

MCQ27: Alkyl halides are converted into alkenes by _____, by treating with a strong base.
Answer: dehydrogenation

MCQ28: Rapid decolourization of bromine solution serves as a test for the presence of the _____ in a compound.
Answer: C=C

MCQ29: When alkene reacts with borane, addition to the C=C takes place to yield organoborane a compound with a carbon-boron bond, the reaction is known as _____.
Answer: hydroboration

MCQ30: In _____ compounds, the molecules are formed by the sharing of electron pairs between the constituent atoms.
Answer: covalent

MCQ31: Which of these compounds have a benzene ring with a methyl group at position one?
Answer: Toluene

MCQ32: A benzene ring with a methyl group at position one and nitro group at position three is _____?
Answer: p−nitrotoluene

MCQ33: Which of these theoretical concepts enables realistic modelling of molecular structure?
Answer: hybridization

MCQ34: _____ is how a sigma (δ) bond is formed.
Answer: edge-on overlap of pure s and p orbitals

MCQ35: The relationship between bond length and bond order is _____.
Answer: Bond order increases as bond length decreases