ECAT Chemistry Chapter 18 Fundamental Principles of Organic Chemistry Online Test

Sr	Questions	Answers Choice
1	The atom other than C in a hetrocyclic compound is called as	A. Hetroatom B. Hetroion C. Hetromolecule D. Hetroelement
2	Who rejected the vital force theory	A. Wholer B. Fisher C. Newton D. Lewis
3	The active part in a molecule is called	A. Hetroatom B. Functional group C. Chemical bond D. Ion
4	Which is not a fossil fuel	A. Petroleum B. Coal C. Natural gas D. None of them
5	The destructive distillation of coal gives three products. What is not the product of destructive distillation of coal	A. Coal gas B. Carbon dioxide C. Coal tar D. Coke
6	The self linking property of carbon is called as	A. Linking polymerization B. Addition C. Catenation D. Elimination
7	The major portion of natural gas is	A. Ethane B. Propane C. Butane D. Methane
8	The fractions obtained from fractional distillation of petroleum are placed in increasing order of their boiling points. Which order is correct	A. Natural gas, petroleum ether, gasoline kerosene B. Petroleum ether, kerosene, natural gas, petroleum ether C. Gasoline, kerosene, natural gas, petroleum ether D. Kerosene, gasoline, petroleum ether, natural gas
9	The use of tetra ethyl lead in petrol as an efficient antiknock agent is being discouraged. Which reason is correct	A. It is costly B. It damages the engine C. Pb is difficult to obtain in bulk quantities D. The combustion product, lead, causes air pollutions
10	Which one of the followings is a heterocyclic compound	A. Cyclohexanol B. Phenol C. Pyridine D. Anthracene
11	Carboxylic acid, ester, amide and amino groups are shown. Which is the correct description of these functional groups	
12	Alkynes normally have _____ hybridization	A. Sp B. Sp² C. SP³ D. d sp³
13	n-butane and iso butane are an example of	A. Chain isomerism B. Positional isomerism C. Meta merism D. Functional group isomerism
14	The functional group isomer of dimethylether is	A. Ethyl alcohol B. Propyl alcohol C. Diethyl ether D. Butyl alcohol
		A. Isopentane

15	Which is the chain isomer of n-pentane	B. Neopentene C. N-pentene D. Isopentene
16	1-butene an 2-butene are an example of	A. Chian isomerism B. Positional isomerism C. Metamerism D. Functional group isomerism
17	The state of hybridization of carbon atom in methane is	A. sp³ B. sp² C. sp D. dsp²
18	In ter-butyl alcohol, the tertiary carbon is bonded to	A. Two hydrogen atoms B. Three hydrogen atoms C. One hydrogen atoms D. No hydrogen atom
19	Which set of hybrid orbitals has planar triangular shape	A. sp³ B. sp C. sp² D. dsp²
20	The chemist who synthesized urea from ammonium cyanate was	A. Berzelius B. Kolbe C. Wholer D. Lavoisier
21	Linear shape is associated with which set of hybrid orbitals	A. sp B. sp² C. sp³ D. dsp²
22	Cracking normally gives smaller _____	A. Alkanes B. Alkenes C. Alkynes D. Both a and b
23	Ether shows the phenomenon of	A. position isomerism B. Chain isomerism C. Metamerism D. Cir-trans isomerism
24	Similarity in properties of different organic compounds give rise to the under standing of _____	A. Polymerization B. Non-polar nature C. Homologous series D. Isomerism
25	The branch of chemistry which deals with the study of compounds containing carbon as an essential elements is called	A. Physical B. Inorganic C. Nuclear D. Organic
26	The open chain compounds are also called	A. Aliphatic B. Alicylic C. Aromatic D. Both a and b
27	Wohler succeeded in obtaining, urea from	A. Cyanogen B. Ammonium cyanate C. Ammonium hydroxide D. None of these
28	Compounds having same molecular formula but different structures are said to be	A. Monomers B. Isomers C. Metamers D. Tautomers
29	Those compound which have any atom other than C as member of rings are called as	A. Monocyclic B. Hetrocyclic C. Aliphatic D. Both a and b
30	The open chain compounds are also called	A. Aliphatic B. Alicylic C. Aromatic D. Both a and b
31	The quality of petroleum is determined by	A. Decane number B. Octane number C. Nexane number D. None of these
32	Benzene is an example of	A. Aromatic compound B. Cyclic compound C. Aliphatic compound D. A cyclic compound

33	Closed chain compound can be classified into	A. Homocyclic B. Hetrocyclic C. Aliphatic D. Both a and b
34	Compounds having the same molecular formula, but different functional groups show	A. Metamerism B. Position isomerism C. Chain isomerism D. Functional group isomerism
35	Organic compounds generally react at _____ rates	A. Slow B. Fast C. Moderate D. None of them
36	The functional group of acid amide is	
37	Gasoline is a mixture of hydrocarbons containing carbon atoms	A. 5 to 10 B. 5 to 8 C. 5 to 12 D. 5 to 11
38	The formula of esters is	
39	The formula of ketone is	D. None of these
40	The distillation of coal at high temperature and in absence of air is called	A. Vacuum distillation B. Normal distillation C. Fractional distillation D. Destructive distillation
41	Which of the following is a product of destructive distillation of coal	A. Ammonia B. Coke C. Cyanides D. Kerosene
42	Alkanes normally have _____ hybridization	A. Sp B. Sp² C. Sp³ D. d sp³
43	A double bond consists of	A. Two sigma bonds B. One sigma and one Pi bond C. One sigma and two Pi bonds D. Two Pi bonds
44	Select from the following the one which alcohol	
45	Due to the bacterial action on wood it is converted into	A. Peat B. Lignite C. Bituminous coal D. Anthracite
46	Catenation is a process in which carbon shows the properties of making	A. Multiple bonds B. Hybridization C. Long chains or rings of carbon atom D. Showing isomerism
47	The gasoline with high octane No. has _____	A. More knocking B. Less knocking C. No knocking D. Only knocking
48	Peat contains about	A. 60% carbon B. 80% carbon C. 78% carbon D. 50% carbon
49	The major components of coal gas are	A. Hydrogen and methane B. Ethane and carbon monoxide C. Nitrogen and ethane D. Ethane and carbon dioxide
50	The percentage of methane in natural gas is	A. 50% B. 60% C. 85% D. 90%
51	Quality of fuel is judged from its octane number. The best fuels are	A. Straight chain hydrocarbons B. Branched chain hydrocarbons C. Cyclic compounds D. Compounds containing benzene ring
52	The catalyst,. which is used as specialist for cracking, are	A. Aluminates B. Alumlnosilicates C. Aluminium slats D. All can be used
		A. CH₂groups

53	Homologues differ from each other by an integral number of	B. CH₃groups C. CH groups D. CH₄groups
54	Which of the following pair contains isomers of each other	A. Propanoic acid and propanone B. Acetone and acetaldehyde C. Ethyl alcohol and diethyl ether D. Methyl alcohol and dimethyl ether
55	Which of the following is not a hydrocarbon	A. Butane B. Methyl benezene C. Acetylene D. Glucose
56	Which of the following is an aromatic compound	A. Propanol B. Cyclohexane C. Acetone D. Benezene
57	Identify the heterocyclic compound	A. Toluene B. Pyridine C. Butanoic acid D. Propenol
58	Which statement is true about a free radical	A. An atom with a positive charge B. An atom with a negative charge C. An atom with a lone pair of electrons D. An atom with unpaired electron
59	Which reaction produces a free radical	A. SN reaction B. Homelytic fission reaction C. Heterolytic fission reaction D. Addition reaction
60	Which of the following expressions show a heterolytic bond fission	
61	In a heterollytic bond fission reaction	A. A molecule of H₂O is formed B. A molecule of H₂O is eliminated C. A free radical is formed D. A positive and a negative ion is formed
62	A free radical reaction takes place in three steps, initiation, propagation and terminations. Which of the following expression represents a propagation step	
63	Which is not the poplar reaction	
64	Which of the following is an electrophile	A. Bromine B. KBr C. NH₃ D. Benzene
65	Which is not a nucleophile	A. Benzene B. Chlorine C. Ethene D. Ethanol
66	A nuclophile must	A. Be an atom B. A group of atoms C. Have a lone pair D. Be negatively charged
67	Cracking done at low pressure and with a catalyst is called _____ cracking	A. Thermal B. Catalytic C. Steam D. None of them
68	How many structural acid cis-trans isomers are there for dichloroprepe, $C_3H_4Cl_2$	A. 3 B. 5 C. 6 D. 7
69	Question Image	A. 0 1 B. 0 2 C. 1 1 D. 1 2
70	Question Image	A. Addition Elimination B. Addition Reduction C. Elimination Reduction D. Substitution Elimination
71	Which of these always applies to a nucleophile	A. It attacks a double bond B. It has a lone pair of electrons C. It is single atom D. It is negatively charged
72	Question Image	A. Condensation B. Dehydration

		C. Dehydrogenation D. Hydrogenation
73	Question Image	A. 1 B. 2 C. 3 D. 4
74	Question Image	A. 0 B. 1 C. 2 D. 3
75	Question Image	A. 2, 2, 4-trimethylpentane B. 2, 4, 4-trimethylpentane C. 2, 4, 4-methyepentane D. 2, 2, 4-methylpentane
76	Which structure shows a primary alcohol	
77	Question Image	A. 1, 5-pentadiene B. Penta-1, 4-diene C. 1, 1-pentadiene D. 1, 4-pentene
78	The gasoline having octane No. 100 has _____	A. More knocking B. Less knocking C. No knocking D. Only knocking
79	Question Image	A. 3 B. 4 C. 5 D. 2
80	When a carbon atom forms single bonds with other carbon atoms, these hybrid orbitals overlap with the orbitals of hydrogen to form four bonds which are	A. Three sigma and one P_i B. Two sigma and two P_i C. One sigma and three P_i D. sigma
81	In which molecule carbon atom is sp^2hybridized	A. CH₄ B. C₂H₄ C. C₂H₂ D. None of the above
82	The isomers due to the unequal distribution of carbon atoms on either side of the functional group belonging to the same homologous series are called	A. Functional isomers B. Position isomers C. Chain isomers D. Metamers
83	I-Chloropropane has two isomers, it is an example of	A. Chain isomerism B. Position isomerism C. Functional group isomerism D. Metamerism
84	Hybridzation explain the --------- of orbitals	A. Type of bonding B. Shapes C. Shape and type of bonding D. None of above
85	Which of the following has linear shape?	A. SP B. SP² C. SP³ D. None of the above
86	The rotation of two carbon atoms joined by double bond would happened only if	A. Pi bond is broken B. Sigma bond is broken C. Both bonds are broken D. None of above
87	Vital force theory was rejected by	A. Berzellius B. Kolbe C. Wholer D. Lavoiser
88	Wholer prepared urea from	A. Ammonia B. NH₄CNO C. NH₃ D. Uric acid
89	The essential component of organic compound is	A. O B. C C. P D. N
90	Organic compounds resemble to those of inorganic compounds having same	A. Ionic properties B. Carbon forming long chain or rings C. Chemical forces D. Isomerism

91	The self linking of carbon atoms is called	A. Chelation B. Isomerism C. Catenation D. None of the above
92	Rates of organic reactions are	A. Fast B. Very fast C. Slow D. Non-reactive
93	Organic compounds are soluble in all except	A. Benzene B. Petroleum C. Ether D. Water
94	Coal is obtained from dead remains of	A. Plants B. Animals C. Both a and b D. None
95	Peat before conversion to bituminous coal is converted to	A. Lignite B. Anthracite C. Asphalt D. None
96	Coal heated in the absence of air of about 500 - 1000°C is converted to	A. Coke B. Coal gas C. Coal tar D. All above
97	Which of the following posses linear geometry	A. Alkane B. Alkene C. Alkyne D. Benzene
98	The bond angle between hydrogen atoms and carbon in alkane is	A. 104.5° B. 107.5° C. 109.5° D. 120.5°
99	Identify the hydrocarbon formed, when ethyl bromide reacts with, alcoholic KOH at 100°	A. Methane B. Ethane C. Ethene D. Ethyne
100	On passing ethane into concentrated suphuric acid the intermediate compound formed on hydrolysis with boiling water gives	A. Methyl alcohol B. Ethyl alcohol C. Ethyl hydrogen sulphate D. Methyl hydrogen sulphate
101	Identify the compound formed, when ethylene combines with water in the presence of 10% sulphuric acid and $HgSO_4$as catalyst	A. Carbinol B. Methanol C. Ethanol D. Glycol
102	Replacement of hydrogen atom by - SO_3H group in benzene is called	A. Nitration B. Alkylation C. Sulphonation D. Acylation
103	Acetylene had a characteristic ethereal smell resembling that of	A. Ginger B. Vinegar C. Garlic D. Onion
104	Polythene is a polymer of	A. Ethane B. Ethene C. Acetone D. Propylene
105	Which of the following is complex?	A. CaSO₄. 0.5H₂O B. (C₆H₁₀O₅)_n C. C₆H₁₂O₆ D. CH₄
106	Which is a mixture of low boiling hydrocarbon	A. Natural gas B. Petroleum C. Wood D. Graphite

107	The structure of benzene is	A. Hexagonal B. Pyramidal C. Square planer D. Tetrahedral
108	The process in which orbitals of different energies and shapes mix up with each other to give equivalent is called,	A. Hybridization B. Polymerization C. Isomerisation D. Carbonization
109	The process in which one s and two p orbitals mix up with each other is called	A. Sp-hybridization B. Sp²-hybridization C. Sp³-hybridization D. Dsp²-hybridization
110	Which of the following contains single bonds	A. Benzene B. Alkyne C. Alkene D. Alkane
111	When a compound X is passed through a dilute alkaline solution of $KMnO_4$the pink colour of solution is discharged. The compound X is possbibly	A. Methane B. Ethane C. Ethene D. Benzene
112	The active part in a molecule is called	A. Homologous series B. Functional group C. Chemical bonding D. Ionic complex
113	Identify the compound which has a bond angle of 109.5°	A. Ethyne B. Ethere C. Methane D. Benzene
114	Compounds of carbon and hydrogen in which the tetra valency of carbon is fully satisfied are called,	A. Saturated B. Un-saturated C. Magnetic D. Para-magnetic
115	The next homologue of $C_{10}H_{22}$will be	A. C₉H₂₀ B. C₁₂H₂₆ C. C₁₁H₂₄ D. C₁₃H₂₈
116	Which of the following gases is used for illuminating purpose?	A. Methane B. Ethane C. Propane D. Butane
117	Which of the following compounds contains a triple bond?	A. Alkane B. Alkene C. Alkyne D. Benzene
118	The characteristic reactions of alkanes are	A. Addition reactions B. Substitution reactions C. Condensation reactions D. Polymerization reactions
119	Unsaturated hydrocarbon containing a double bond are called	A. paraffin B. Alkanes C. Olefins D. Acetylene
120	Hydrocarbons contain	A. C and S only B. C and H only C. C, H, and O only D. C, H, O and N only
121	Sp^3 hybridization occurs when carbon is bound to	A. Four other atoms B. Three other atoms C. Two other atoms D. One other atoms
122	In sp^2type hybridization the three equivalent sp^2orbitals lie in the same plane and at angle of	A. 0° B. 60° C. 120° D. 180°
123	The general formula for alkenes is	A. C_nH_{2n+1} B. C_nH_{2n+2} C. C_nH_{2n} D. C_nH_{2n-2}

124	In alkynes the bonds between carbon atoms are	A. All sigma bonds B. All pi(π) bonds C. One is sigma and two areπ(pi) bonds D. One isπ(pi) and two are sigma bonds
125	Normal by product of cracking is	A. Ethane B. Butane C. Benzene D. All of them
126	The open chain organic compounds are called	A. Linear compounds B. Aromatic C. Aliphatic D. Both A and B
127	The compounds which have any atom other than Carbon atom, in rings are called as	A. Monocyclic B. Heterocyclic C. Homocyclic D. None of the above
128	The state of hybridization of carbon atom in methane is:	A. sp³ B. sp² C. sp D. dsp²
129	In t-butyl alcohol, the tertiary carbon is bonded to:	A. Two hydrogen atom B. Three hydrogen atoms C. One hydrogen atoms D. No hydrogen atoms
130	Which set of hybrid orbitals has planar triangle shape?	A. sp³ B. sp C. sp² D. dsp²
131	The chemist who synthesized urea form ammonia cyanate was:	A. Berzelius B. Kolbe C. Wohler D. Lavoiser
132	Linear shape is associated with set of hybrid orbitals?	A. sp B. sp2 C. sp3 D. dsp2
133	A double bond consists of:	A. Two sigma bonds B. One sigma and one pi bonds C. One sigma and two pi bonds D. Two pi bonds
134	Ether show the phenomenon of :	A. Position isomerism B. Functional group isomerism C. Metamerism D. Cis-trans isomerism
135	Select from the following which one is alcohol?	A. CH₃-CH₂-OH B. CH₃-O-CH₃ C. CH₃COOH D. CH₂-CH₂-BR
136	Fossil fuels consist of :	A. Coal B. Natural gas C. Petroleum D. All of these
137	Geographical survey of Pakistan estimates about billion tons of coal in Pakistan:	A. 182 B. 183 C. 184 D. 185
138	Major component of natural gas is:	A. Ethane B. Ethene C. Propane D. Methane
139	At present oil refineries in Pakistan are:	A. One B. Two C. Three D. Four

140	Cracking products are :	A. Only alkanes B. Only alkenes C. Alkanes and alkenes D. Alkynes
141	Types of cracking are:	A. Thermal B. Catalytic C. Steam D. All a, b ,c
142	Tetraethyle lead causes disease:	A. Typhoid B. Respiratory C. Stomach D. Muscular
143	The general formula of saturated alicyclic hydrocarbons is:	A. C_nH_n B. C_nH_{2n} C. C_nH_{2n+2} D. C_nH_{2n-1}
144	Diversity of organic compounds in millions is:	A. Four B. Five C. Six D. Seven
145	General formula of carbocyclic acids is:	A. RCOH B. RCOR C. RCOOR D. R-OH
146	Linear geometry is present in:	A. Sp³ B. Sp² C. Sp D. D²sp³
147	Angle 120° is observed in molecules :	A. CH₄ B. CH₃₋CH₃ C. CH -CH D. CH_{2 =}CH₂
148	Functional group of ketones is:	A. ---CHO B. ---CO--- C. ---C≡ N D. ---COOH
149	Products of coal is:	A. Peat B. Lignite C. Bituminous coal D. All above
150	Which gasoline is better?	A. Of low boiling point B. Of low molecular mass C. Of high octane D. All of these
151	Type of isomerism in BrCH=CHBr is:	A. Structural isomerism B. <blockquote style="margin: 0 0 0 40px; border: none; padding: 0px;">Conformational isomerism</blockquote> C. Geometrical isomerism D. Positional isomerism
152	type of hybridization in CH≡CH is:	A. sp B. sp² C. sp³ D. dsp²
153	Number of isomers of butane are:	A. One B. Two C. Three D. Four
154	Source of organic compounds primarily is:	A. Plants B. Animals C. Minerals D. A & B
155	Wohler synthesized first of all the organic compound:	A. Carbohydrates B. Urea C. Aniline D. Toluene
156	Self linkage of carbon to produce long chains	A. isomerism B. Polymorphism C. Polymerization D. Catenation

157	In the presence of high temperature and pressure peat is converted to:	A. Lignite B. Polymorphism C. Polymerization D. Catenation
158	Coal is used to bake bricks in lime kiln:	A. 40% B. 60% C. 80% D. None of these