ECAT Chemistry Chapter 18 Fundamental Principles of Organic Chemistry Online Test

Sr	Questions	Answers Choice
1	Question Image	A. 0 1 B. 0 2 C. 1 1 D. 1 2
2	Ether show the phenomenon of :	A. Position isomerism B. Functional group isomerism C. Metamerism D. Cis-trans isomerism
3	Which is not the poplar reaction	
4	Organic compounds are soluble in all except	A. Benzene B. Petroleum C. Ether D. Water
5	The state of hybridization of carbon atom in methane is	A. sp³ B. sp² C. sp D. dsp²
6	In which molecule carbon atom is sp^2hybridized	A. CH₄ B. C₂H₄ C. C₂H₂ D. None of the above
7	A nuclophile must	A. Be an atom B. A group of atoms C. Have a lone pair D. Be negatively charged
8	Wholer prepared urea from	A. Ammonia B. NH₄CNO C. NH₃ D. Uric acid
9	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
10	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
11	Homologues differ from each other by an integral number of	A. CH₂groups B. CH₃groups C. CH groups D. CH₄groups
12	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
13	I-Chloropropane has two isomers, it is an example of	A. Chain isomerism B. Position isomerism C. Functional group isomerism D. Metamerism
14	Wohler succeeded in obtaining, urea from	A. Cyanogen B. Ammonium cyanate C. Ammonium hydroxide D. None of these
15	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
16	A free radical reaction takes place in three steps, initiation, propagation and terminations. Which of the following expression represents a propagation step	
17	Question Image	A. 3 B. 4 C. 5 D. 2
18	At present oil refineries in Pakistan are:	A. One B. Two C. Three D. Four
19	Ether shows the phenomenon of	A. position isomerism B. Chain isomerism C. Metamerism D. Cir-trans isomerism
20	The open chain compounds are also called	A. Aliphatic B. Alicylic C. Aromatic D. Both a and b
21	Identify the compound which has a bond angle of 109.5°	A. Ethyne B. Ethere C. Methane D. Benzene
22	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
23	Which of the following is an aromatic compound	A. Propanol B. Cyclohexane C. Acetone D. Benezene
24	Tetraethyle lead causes disease:	A. Typhoid B. Respiratory C. Stomach D. Muscular
25	Cracking normally gives smaller _____	A. Alkanes B. Alkenes C. Alkynes D. Both a and b
26	Carboxylic acid, ester, amide and amino groups are shown. Which is the correct description of these functional groups	
27	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
28	Alkanes normally have _____ hybridization	A. Sp B. Sp² C. Sp³ D. d sp³
29	Which is a mixture of low boiling hydrocarbon	A. Natural gas B. Petroleum C. Wood D. Graphite
30	General formula of carbocyclic acids is:	A. RCOH B. RCOR C. RCOOR D. R-OH
31	Question Image	A. 1, 5-pentadiene B. Penta-1, 4-diene C. 1, 1-pentadiene D. 1, 4-pentene
32	Acetylene had a characteristic ethereal smell resembling that of	A. Ginger B. Vinegar C. Garlic

		D. Onion
33	In the presence of high temperature and pressure peat is converted to:	A. Lignite B. Polymorphism C. Polymerization D. Catenation
34	Organic compounds generally react at _____ rates	A. Slow B. Fast C. Moderate D. None of them
35	Which is the chain isomer of n-pentane	A. Isopentane B. Neopentene C. N-pentene D. Isopentene
36	Question Image	A. 0 B. 1 C. 2 D. 3
37	Question Image	A. Addition Elimination B. Addition Reduction C. Elimination Reduction D. Substitution Elimination
38	Which of the following is a product of destructive distillation of coal	A. Ammonia B. Coke C. Cyanides D. Kerosene
39	Diversity of organic compounds in millions is:	A. Four B. Five C. Six D. Seven
40	Which is not a fossil fuel	A. Petroleum B. Coal C. Natural gas D. None of them
41	The functional group of acid amide is	
42	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
43	Vital force theory was rejected by	A. Berzellius B. Kolbe C. Wholer D. Lavoiser
44	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}
45	Hybridzation explain the --------- of orbitals	A. Type of bonding B. Shapes C. Shape and type of bonding D. None of above
46	Question Image	A. 2, 2, 4-trimethylpentane B. 2, 4, 4-trimethylpentane C. 2, 4, 4-methyepentane D. 2, 2, 4-methylpentane
47	The open chain compounds are also called	A. Aliphatic B. Alicylic C. Aromatic D. Both a and b
48	Which is not a nucleophile	A. Benzene B. Chlorine C. Ethene D. Ethanol
49	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
50	Linear geometry is present in:	A. Sp³ B. Sp² C. Sp D. D²sp³

51	The state of hybridization of carbon atom in methane is:	A. sp³ B. sp² C. sp D. dsp²
52	type of hybridization in CH≡CH is:	A. sp B. sp² C. sp³ D. dsp²
53	The essential component of organic compound is	A. O B. C C. P D. N
54	Rates of organic reactions are	A. Fast B. Very fast C. Slow D. Non-reactive
55	Coal is used to bake bricks in lime kiln:	A. 40% B. 60% C. 80% D. None of these
56	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
57	Which of the following posses linear geometry	A. Alkane B. Alkene C. Alkyne D. Benzene
58	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
59	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}
60	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
61	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
62	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
63	n-butane and iso butane are an example of	A. Chain isomerism B. Positional isomerism C. Meta merism D. Functional group isomerism
64	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
65	Which of the following has linear shape?	A. SP B. SP² C. SP³ D. None of the above
66	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
67	Identify the hydrocarbon formed, when ethyl bromide reacts with, alcoholic KOH at 100°	A. Methane B. Ethane C. Ethene D. Ethyne
		A. Thermal

68	Cracking done at low pressure and with a catalyst is called _____ cracking	A. Thermal B. Catalytic C. Steam D. None of them
69	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
70	Products of coal is:	A. Peat B. Lignite C. Bituminous coal D. All above
71	Which of the following contains single bonds	A. Benzene B. Alkyne C. Alkene D. Alkane
72	Unsaturated hydrocarbon containing a double bond are called	A. paraffin B. Alkanes C. Olefins D. Acetylene
73	Who rejected the vital force theory	A. Wholer B. Fisher C. Newton D. Lewis
74	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
75	The chemist who synthesized urea form ammonia cyanate was:	A. Berzelius B. Kolbe C. Wohler D. Lavoiser
76	Types of cracking are:	A. Thermal B. Catalytic C. Steam D. All a, b ,c
77	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
78	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
79	Question Image	A. Condensation B. Dehydration C. Dehydrogenation D. Hydrogenation
80	Which structure shows a primary alcohol	
81	The catalyst,. which is used as specialist for cracking, are	A. Aluminates B. Alumlnosilicates C. Aluminium slats D. All can be used
82	Polythene is a polymer of	A. Ethane B. Ethene C. Acetone D. Propylene
83	Which of the following gases is used for illuminating purpose?	A. Methane B. Ethane C. Propane D. Butane
84	Functional group of ketones is:	A. ---CHO B. ---CO--- C. ---C≡ N D. ---COOH
85	How many structural acid cis-trans isomers are there for dichloroprepe, $C_3H_4Cl_2$	A. 3 B. 5 C. 6 D. 7
86	Which of the following expressions shows a heterolytic bond fission	

86	Which of the following expressions show a heterolytic bond fission	
87	Major component of natural gas is:	A. Ethane B. Ethene C. Propane D. Methane
88	Which of the following is not a hydrocarbon	A. Butane B. Methyl benezene C. Acetylene D. Glucose
89	The open chain organic compounds are called	A. Linear compounds B. Aromatic C. Aliphatic D. Both A and B
90	Benzene is an example of	A. Aromatic compound B. Cyclic compound C. Aliphatic compound D. A cyclic compound
91	Linear shape is associated with which set of hybrid orbitals	A. sp B. sp² C. sp³ D. dsp²
92	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
93	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
94	Select from the following which one is alcohol?	A. CH₃-CH₂-OH B. CH₃-O-CH₃ C. CH₃COOH D. CH₂-CH₂-BR
95	Which gasoline is better?	A. Of low boiling point B. Of low molecular mass C. Of high octane D. All of these
96	The structure of benzene is	A. Hexagonal B. Pyramidal C. Square planer D. Tetrahedral
97	The major portion of natural gas is	A. Ethane B. Propane C. Butane D. Methane
98	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
99	Which reaction produces a free radical	A. SN reaction B. Homelytic fission reaction C. Heterolytic fission reaction D. Addition reaction
100	Which set of hybrid orbitals has planar triangular shape	A. sp³ B. sp C. sp² D. dsp²
101	Which of the following compounds contains a triple bond?	A. Alkane B. Alkene C. Alkyne D. Benzene
102	Due to the bacterial action on wood it is converted into	A. Peat B. Lignite C. Bituminous coal D. Anthracite
103	Compounds having the same molecular formula, but different functional groups show	A. Metamerism B. Position isomerism C. Chain isomerism D. Functional group isomerism
104	The characteristic reactions of alkanes are	A. Addition reactions B. Substitution reactions

		C. Condensation reactions D. Polymerization reactions
105	Which set of hybrid orbitals has planar triangle shape?	A. sp³ B. sp C. sp² D. dsp²
106	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°
107	Alkynes normally have _____ hybridization	A. Sp B. Sp² C. SP³ D. d sp³
108	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
109	Which of the following is an electrophile	A. Bromine B. KBr C. NH₃ D. Benzene
110	The bond angle between hydrogen atoms and carbon in alkane is	A. 104.5° B. 107.5° C. 109.5° D. 120.5°
111	Identify the heterocyclic compound	A. Toluene B. Pyridine C. Butanoic acid D. Propenol
112	The gasoline with high octane No. has _____	A. More knocking B. Less knocking C. No knocking D. Only knocking
113	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
114	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
115	The active part in a molecule is called	A. Hetroatom B. Functional group C. Chemical bond D. Ion
116	The active part in a molecule is called	A. Homologous series B. Functional group C. Chemical bonding D. Ionic complex
117	The quality of petroleum is determined by	A. Decane number B. Octane number C. Nexane number D. None of these
118	Source of organic compounds primarily is:	A. Plants B. Animals C. Minerals D. A & B
119	The percentage of methane in natural gas is	A. 50% B. 60% C. 85% D. 90%
120	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
121	The formula of esters is	
122	Fossil fuels consist of :	A. Coal B. Natural gas C. Petroleum D. All of these
123	The self linking property of carbon is called as	A. Linking polymerization B. Addition C. Catenation D. Elimination
124	The gasoline having octane No. 100 has _____	A. More knocking B. Less knocking C. No knocking D. Only knocking
125	The atom other than C in a hetrocyclic compound is called as	A. Hetroatom B. Hetroion C. Hetromolecule D. Hetroelement
126	Linear shape is associated with set of hybrid orbitals?	A. sp B. sp2 C. sp3 D. dsp2
127	Number of isomers of butane are:	A. One B. Two C. Three D. Four
128	Question Image	A. 1 B. 2 C. 3 D. 4
129	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
130	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
131	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
132	Geographical survey of Pakistan estimates about billion tons of coal in Pakistan:	A. 182 B. 183 C. 184 D. 185
133	Which one of the followings is a heterocyclic compound	A. Cyclohexanol B. Phenol C. Pyridine D. Anthracene
134	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
135	Wohler synthesized first of all the organic compound:	A. Carbohydrates B. Urea C. Aniline D. Toluene
136	Which of the following is complex?	A. CaSO₄. 0.5H₂O B. (C₆H₁₀O₅)_n C. C₆H₁₂O₆ D. CH₄
137	Compounds having same molecular formula but different structures are said to be	A. Monomers B. Isomers C. Metamers D. Tautomers
		A. Homocyclic B. Hetrocyclic

138	Closed chain compound can be classified into	B. Heterocyclic C. Aliphatic D. Both a and b
139	Self linkage of carbon to produce long chains	A. isomerism B. Polymorphism C. Polymerization D. Catenation
140	Coal is obtained from dead remains of	A. Plants B. Animals C. Both a and b D. None
141	Normal by product of cracking is	A. Ethane B. Butane C. Benzene D. All of them
142	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
143	The formula of ketone is	D. None of these
144	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
145	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
146	Cracking products are :	A. Only alkanes B. Only alkenes C. Alkanes and alkenes D. Alkynes
147	Replacement of hydrogen atom by - SO_3H group in benzene is called	A. Nitration B. Alkylation C. Sulphonation D. Acylation
148	Peat contains about	A. 60% carbon B. 80% carbon C. 78% carbon D. 50% carbon
149	The functional group isomer of dimethylether is	A. Ethyl alcohol B. Propyl alcohol C. Diethyl ether D. Butyl alcohol
150	The next homologue of $C_{10}H_{22}$will be	A. C₉H₂₀ B. C₁₂H₂₆ C. C₁₁H₂₄ D. C₁₃H₂₈
151	Select from the following the one which alcohol	
152	The chemist who synthesized urea from ammonium cyanate was	A. Berzelius B. Kolbe C. Wholer D. Lavoisier
153	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
154	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
155	Peat before conversion to bituminous coal is converted to	A. Lignite B. Anthracite C. Asphalt D. None
156	Angle 120° is observed in molecules :	A. CH₄ B. CH₃₋CH₃ C. CH -CH D. CH_{2 =}CH₂
		A. Chian isomerism

157	1-butene an 2-butene are an example of	A. Chain isomerism B. Positional isomerism C. Metamerism D. Functional group isomerism
158	The self linking of carbon atoms is called	A. Chelation B. Isomerism C. Catenation D. None of the above