

PPSC Chemistry Full Book Test

Sr	Questions	Answers Choice
1	The condensation between formaldehyde and acetaldehyde in the presence of conc. NaOH and heat gives.	A. Acrolein B. Mixture of CH_3OH and $\text{CH}_3\text{COO Na}$ C. Mixture of $\text{CH}_3\text{CH}_2\text{OH}$ and $\text{HCOO}^- \text{Na}^+$ D. None of these
2	Which of the following pair on aldol condensation followed by dehydration gives methyl vinyl ketone.	A. HCHO and CH_3COCH_3 B. HCHO and CH_3CHO C. CH_3CHO and CH_3CHO D. CH_3COCH_3 and CH_3COCH_3
3	Select the major product obtained from the addition of HBr to 1-Methyl cyclohexene	A. 1-bromo -2- methyl cyclohexane B. 6- bromo-i- methyl cyclohex -i- ene C. 3- bromo -1- methyl cyclohex - 1- ene D. 1-bromo -1- methyl cyclohexane
4	The number of optically active compounds in the isomers of $\text{C}_3\text{H}_5\text{Br}_3$ is.	A. 1 B. 2 C. 3 D. 4
5	The reagent which can react with 1- chlorobutane to give substitution product is	A. AlCl_3 B. $\text{KOH} - \text{CH}_3\text{OH}$ C. NaCN D. Mg/ether
6	When the colourless liquid chlorobenzene is shaken with bromine water, the chlorobenzene becomes a yellow-orange colour. Which of the following is the best interpretation of this.	A. An addition compound of chlorobenzene and bromine has been formed. B. The chlorine atom has been replaced by a bromine atom C. The bromine is more soluble in chlorobenzene than in water D. A hydrogen atom has been replaced by a bromine atom
7	For which of the following compounds is the rate of hydrolysis by aqueous alkali most likely to be independent of the hydroxide ion concentration.	A. 1-Chlorobutane B. 2- Bromobutane C. 1- Iodobutane D. 2- Bromo -2- methyl butane
8	Which one of the following would make an $\text{S}_{\text{N}}2$ mechanism more likely	A. Bulky substituents near the halogen B. A polar solvent C. A tertiary carbocation intermediate D. A reactive nucleophile
9	Select the major product obtained from the addition HBr to 1-methyl cyclohexene.	A. 1- bromo -2- methyl cyclohexane B. 6- bromo-1- methyl cyclohex - 1- ene C. 3- bromo-1- methyl cyclohex -1- ene D. 1- bromo-1- methyl cyclohexane
10	Among the following a good solvent for a Grignard reagent formation would be.	A. t- butanol B. dimethyl ether C. difluoro ethane D. tetrahydrofuran
11	A salt solution is treated with chloroform drops. Then it is shaken with chlorine water, chloroform layer becomes violet solution contains.	A. NO_2^- ion B. NO_3^- ion C. Br^- ion D. I^- ion
12	Aromatic amine (X) was treated with alcoholic potash and another compound (Y) when foul smelling gas was formed with formula $\text{C}_2\text{H}_3\text{N}$ (Y) was formed by reacting a compound (Z) with Cl_2 in the presence of slaked lime. The compound (Z) is	A. $\text{C}_6\text{H}_5\text{NC}$ B. CHCl_3 C. $\text{CH}_3\text{CH}_2\text{OH}$ D. $\text{C}_6\text{H}_5\text{NH}_2$
13	Alkaline hydrolysis of chloroform produces.	A. HCCO B. $\text{HCOO}^- + \text{CO}$ C. H_3COH D. CHCl_2OH

14	Which of the following alkyl halide undergoes nucleophilic substitution reaction via the formation of a carbocation.	A. 1-chloro -2 methyl propane B. 2- chloro-2-methyl propane C. 2- chloro butane D. 1-Chloro, 3,3- dimethyl pentane
15	When alkyl iodides are decomposed by light then the product obtained is.	A. R - R B. R - H C. RCH ₂ I D. RCHI ₂
16	Iodination of benzene takes place in the presence of iodine and	A. HNO ₃ B. HIO ₃ C. HgO D. All of these
17	Chlorination of benzene with excess chlorine in the presence of FeCl ₃ as Lewis acid gives.	A. Chlorobenzene as a major product B. o-dichlorobenzene as major product C. p-dichloro benzene as an only product D. A mixture of o- and p- dichloro benzene
18	An optically active compound	A. Must contain at least four carbons B. When in solution rotate the plane of polarized light C. Most always contain an asymmetric carbon atom D. In solution always give negative reading in polarimetre
19	A molecule is said to be chiral	A. If it contains plane of symmetry B. If it contains centre of symmetry C. If it can be superimposed on its mirror image D. None of the above
20	Plane polarized light is affected by	A. Identical molecules B. All polymers C. Chiral molecules D. All biomolecules
21	It is possible to distinguish between optical isomers.	A. Using chemical tests B. By mass spectrometry C. By IR spectroscopy D. By polarimetry
22	Enantiomers have which of the following characteristics.	A. Rotate ordinary light B. Have the same melting point C. Are superimposable mirror images D. React with optically active molecule at the same rate
23	Which of the following statements is false about enantiomers.	A. Rotate plane of polarized light B. Are superimposable mirror images C. Are non-superimposable mirror images D. All of the above
24	What is the possible number of optical isomers for a compound containing 2 dissimilar asymmetric carbon atoms.	A. 2 B. 4 C. 6 D. 8
25	Which of the following compound will be optically active.	A. Succinic acid B. Meso tartaric acid C. Acetic acid D. Lactic acid
26	2- Butanol is optically active because it contains	A. An asymmetric carbon atom B. A plane of symmetry C. Centre of symmetry D. A hydroxyl group
27	Lactic acid is a molecule which shows	A. Epimerism B. Tautomerism C. Optical isomerism D. Metamerism
28	Process of separating the racemic mixture into optically active isomers is known as.	A. Resolution B. Racemisation C. Walden inversion D. Epimerization
		A. 2- geometrical isomers B. 2- optical isomers C. 2- geometrical and 2- optical

29	How many stereoisomers are possible for $\text{CH}_3\text{CH}=\text{CHCH}(\text{Br})\text{CH}_3$	<p>C. 2- geometrical and 2- optical isomers</p> <p>D. 2- geometrical and 1 optical isomers</p>
30	According to R, S system the correct order of priority of the following groups is .	<p>A. $-\text{CH}_2\text{OH} > -\text{CHO} > -\text{COOH}$</p> <p>B. $-\text{COOH} > -\text{CHO} > -\text{CH}_2\text{OH}$</p> <p>C. $-\text{CH}_2\text{OH} > -\text{COOH} > -\text{CHO}$</p> <p>D. $-\text{COOH} > -\text{CH}_2\text{OH} > -\text{CHO}$</p>