	Organic Chemistry SEM 6 MCQ's
1	A reaction giving predominantly one enantiomer out of a set of possible enantiomers is called as _____. (f,e) reaction (d,e) reaction (p,e) reaction (e,e) reaction
2	In stereoselective reactions, the stereochemical nature of the product does not depend on the _____ of the reactant. acidity stereochemical nature basicity electrochemical
3	If a particular enantiomer gives a specific enantiomeric product on reaction, then it is called as _____ reaction. enantiotopic enantiospecific diastereoselective diastereospecific
4	The characteristic of the S_Ni reaction is it _____ Follow first order kinetics Follow Intermolecular mechanism Follow zero order kinetics Follow second order kinetics
5	Bromination of an alkene is an example of _____ Cis addition Trans addition Nucleophilic addition Syn addition
6	Partial reduction of but-2-yne using Hydrogen in presence of Pd supported on $BaSO_4$ gives cis but-2-ene as major product; the reaction can be classified as _____ Enantiomeric excess Diastereomeric excess enantiospecific diastereospecific

7	Bromination of a nonterminal alkene is an example of _____ reaction. Non- Stereoselective Enantioselective Non -stereospecific Both stereo selective and stereospecific
8	Base induced dehydrohalogenation of 1-bromo-1,2-diphenyl propane follows _____ Syn elimination Anti elimination Cis elimination Two step elimination
9	The S_Ni reaction gives a retention of configuration of the product is accounted for the formation of _____ carbanion Alkyl chlorosulphite Intimate ion pair carbocation
10	The reactions like S_N2 are completely _____ and hence _____. Stereoselective, at times stereospecific Stereospecific, Stereoselective Stereoselective, never stereospecific Stereoselective, cannot predict about stereospecificity
11	Aldehyde reacts with HCN in presence of ammonia to yield α-aminonitrile as intermediate. This is part of _____. Gabriel's Synthesis Strecker Synthesis Azalactone Synthesis Amidomalonate Synthesis
12	Secondary structure of a protein gives an information about _____ How are polypeptide chains held each other and their conformations The number of each amino acid present in the chain The sequence of amino acid present in the chain Nature of amino acids in the chain

13	The advantage of Merrifield solid phase peptide synthesis is/are_____. moderate yield of peptide is formed Mixture of peptides can be prepared Isomeric peptides can be prepared Easy purification and high yield
14	The acid catalysed transformation of an aromatic ketoxime to N-substituted amide is known as …… rearrangement Favorskii Beckmann Michael Wittig
15	The reaction of …… with acid is called Beckmann rearrangement amide ketoester α-halo ketone ketoxime
16	The final product obtained in a Favorskii rearrangement is a rearranged……..derivatives of carboxylic acid ketone alkene alcohol
17	Epimers are compounds that differ in configuration at …… Any one asymmetric carbon β-carbon γ-carbon σ-carbon
18	…… method is used to descent the series of aldehyde in carbohydrates Kiliani's Weerman's Ruff's Wohl's

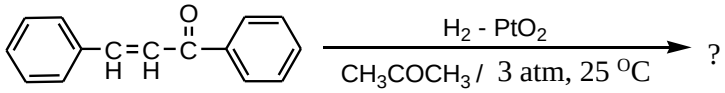
19	Cane sugar on hydrolysis yield…….. glucose & maltose glucose & fructose glucose & lactose Only glucose
20	In the……..., glycosidic linkage lies to the right of the anomeric carbon atom α form β form γ form σ form
21	Periodic oxidation of sugars is also called as…….. oxidation Swern Jones Malaprade Darzen
22	…….. is an example of reducing sugar Lactose Sucrose Glucose Fructose
23	α-D-fructofuranose and α-D-fructopyranose are……. constitutional isomers diastereoisomers anomers enantiomers
24	…… is the most stable form of glucose. α-D-glucopyranose β-D-glucopyranose α-D-glucofuranose β-D-glucofuranose

25	The methyl fructosides on refluxing with……. give corresponding pentamethyl fructoses Dimethyl sulphate in NaOH Dimethyl sulphate in dry HCl Methanol in dry HCl Methyl Lithium in NaOH
26	……. is not a homopolysaccharide Insulin Chitin Hyaluronic acid glycogen
27	The number of optical isomers of glucose are 4 8 16 32
28	When a fundamental vibration couples with an overtone or combination band, the coupled vibration is called _____. fermi resonance scissoring in-plane vibration stretching
29	IR radiation has sufficient energy to cause atoms or group to _____ faster about the covalent bond connecting them. Jump relax vibrate rotate
30	^{1}H NMR spectroscopy gives information about the magnetically distinct _____ nuclei present in the molecule. Carbon oxygen hydrogen nitrogen

31	The chemical shift value of acetylenic proton is _____ ethylenic proton less than greater than equal to much greater than
32	The number of signals in ^{1}H NMR spectroscopy tells _____present in the molecule. how many different types of proton about the electronic environment of each proton how many protons are there in identical environment about the environment of a proton with respect to other nearby proton
33	The nuclear magnetic resonance phenomenon occurs when there is _____ transition. spin state electronic level vibrational level rotational level
34	_____ nuclei is not NMR active. $^{1}H_{1}$ $^{2}H_{1}$ $^{13}C_{6}$ $^{16}O_{8}$
35	On complete hydrolysis, nucleic acids give ----------. Mixture of nucleotides Mixture of nucleosides Sugars, Bases, and phosphate residues Bases and sugars
36	Which one of the following nucleotide pair bonds would be found in a DNA molecule? adenine-guanine guanine-cytosine adenine-cytosine cytosine-uracil

37	The chain that forms the backbone of a nucleic acid molecule is ---. Polyamide Polyester Polyethylene Polystyrene
38	Which component is found in both guanosine and uridine? Both contain an aldohexose. Both contain three hydroxyl groups. Both contain a purine ring Both contain a pyranose.
39	The key to the ability of DNA to store genetic information and to pass it on from generation to generation is due to Its double stranded structure deoxyribose sugar phosphodiester backbone nitrogen bases
40	Which of these statements are TRUE for a glycosidic bond? The bond between sugar and the nitrogenous base The bond between the two sugar residues The bond between the two sugar residues The bond between base and phosphate
41	Catalytic hydrogenation is an example of ……. Homogeneous catalysts oxidation heterogeneous catalysis rearrangement
42	Nitriles can be reduced to primary amines using……. Raney -Ni Br_2/ CCl_4 Pd-$BaSO_4$ SeO_2

43	Sodium bis(2-methoxy epoxy) aluminium hydride is also known as….. Red-Al epoxides hydrates alumina
44	Chemical species which improve the catalytic activity are called as……. catalyst promoters poisons precatalyst
45	$NaBH_4$ and $LiAlH_4$ do not reduce……functional groups. Polar nonpolar both any
46	……..is widely used as reducing agents for carbohydrates. CAN SeO_2 $KMnO_4$ $NaBH_4$
47	Reduction of olefinic double bonds using PtO_2 gives mainly…… *Cis*-isomer *trans*-isomer both none
48	Oxidation of alkene to epoxides can be achieved by using….. m-CPBA CAN NaBH4 Pd/C

49	 Ph-CH_2CH_2-CHOHPh Ph-CH =CH-CH_2Ph Ph-CH=CH-CHO Ph-CH_2CH_2-COPh
50	A polymer made up of a more than type of monomer is called as ……. plastics heteropolymers Fibers thermosets

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