

JVM's Mehta Degree College

Mission Exam 2020

T.Y.B.Sc. (Organic Chemistry) Sem-VI

Mock Question paper

1. A carbon atom to which enantiotopic ligands are attached is called
 - a) Chiral centre
 - b) Prochiral centre
 - c) chiral carbon
 - d) stereogenic centre
2. The base induced dehydrohalogenation of 1-Bromo-1,2-diphenyl propane follows.....
 - a) E1 Mechanism
 - b) E_i mechanism
 - c) E1CB mechanism
 - d) E2 Mechanism
3. If a pair of diastereomers are obtained by attaching an atom or group to one or other faces of a molecule, they are called
 - a) Enantiotopic
 - b) Diastereotopic
 - c) Homotopic
 - d) Stereotopic
4. Building blocks of proteins are monomeric.....
 - a) Oligopeptide
 - b) polypeptide
 - c) dipeptide
 - d) amino acid
5. Histidine is an example of Amino acid.
 - a) Neutral
 - b) Acidic
 - c) Basic
 - d) Ionic
6. The acid catalysed conversion of vicinal diols to highly substituted aldehydes or ketones is known as
 - a) Pinacol-pinacolone rearrangement
 - b) Michael reaction
 - c) Wittig reaction
 - d) Beckmann
7. Reaction of carbonyl compound with phosphorous ylide to produce alkene is known as
 - a) Pinacol-pinacolone rearrangement
 - b) Michael reaction
 - c) Wittig reaction
 - d) Beckmann

- 8 Which one of the following is disaccharides?
- Lactose
 - Glucose
 - Mannose
 - Galactose
- 9 D-Glucose on oxidation with $\text{Br}_2\text{-H}_2\text{O}$ gives the following aldonic acid
- $$\begin{array}{c} \text{CHO} \\ | \\ \text{H}-\text{C}-\text{OH} \\ | \\ \text{HO}-\text{C}-\text{H} \\ | \\ \text{H}-\text{C}-\text{OH} \\ | \\ \text{H}-\text{C}-\text{OH} \\ | \\ \text{COOH} \end{array}$$
 - $$\begin{array}{c} \text{COOH} \\ | \\ \text{H}-\text{C}-\text{OH} \\ | \\ \text{HO}-\text{C}-\text{H} \\ | \\ \text{H}-\text{C}-\text{OH} \\ | \\ \text{H}-\text{C}-\text{OH} \\ | \\ \text{COOH} \end{array}$$
 - $$\begin{array}{c} \text{COOH} \\ | \\ \text{H}-\text{C}-\text{OH} \\ | \\ \text{HO}-\text{C}-\text{H} \\ | \\ \text{H}-\text{C}-\text{OH} \\ | \\ \text{H}-\text{C}-\text{OH} \\ | \\ \text{CH}_2\text{OH} \end{array}$$
 - $$\begin{array}{c} \text{CH}_3 \\ | \\ \text{H}-\text{C}-\text{OH} \\ | \\ \text{HO}-\text{C}-\text{H} \\ | \\ \text{H}-\text{C}-\text{OH} \\ | \\ \text{H}-\text{C}-\text{OH} \\ | \\ \text{COOH} \end{array}$$
- 10 How many moles of methanols in dry HCl reacts with D-glucose?
- 1
 - 2
 - 3
 - 4
- 11 Intense absorption band around 1700 cm^{-1} indicates presence ofgroup.
- OH
 - CN
 - C=O
 - SH
- 12 A peak appears around..... cm^{-1} due to carbon-carbon triple bond stretching vibration.
- 3300 cm^{-1}
 - 2100 cm^{-1}
 - 690 cm^{-1}
 - 1700 cm^{-1}
- 13 How many signals do you expect in an NMR spectrum of toluene?
- one
 - two
 - three
 - four
- 14 Nucleic acids on complete hydrolysis give sugar base and
- hydrochloric acid
 - acetic acid
 - phosphoric acid
 - formic acid
- 15 Cytosines and thymine are derivatives of.....
- Pyrimidines
 - piperidine
 - pyridine
 - purines
- 16 Nylon thread contains the polymer.....
- Polyethylene
 - Polyamide
 - Polyester

- 17 d) Polyvinyl
The substance which are added to the polymers to arrest its degradation are called.....
- a) Stabilizers
b) Fillers
c) Plasticizers
d) Elastomers
- 18 The synthetic polymer..... is used as artificial skin.
- a) polyhydroxyalkanoate
b) Lexan
c) polyurethane
d) poly α -cyanoacrylate
- 19 In Rosenmunds reduction of aldehyde, BaSO_4the catalyst.
- a) Lindlars catalyst
b) Nickel
c) palladium
d) Platinum
- 20 The active methylene group can be selectively oxidized by.....
- a) Pd-BaSO_4
b) NaBH_4
c) BH_3
d) SeO_2

Answer key

Question	Answer	Question	Answer
1	b	11	c
2	d	12	d
3	b	13	b
4	d	14	c
5	c	15	a
6	a	16	b
7	c	17	a
8	a	18	d
9	c	19	c
10	a	20	d