

**PARUL UNIVERSITY**  
**PARUL INSTITUTE OF APPLIED SCIENCES**  
**MID SEMESTER INTERNAL EXAMINATION, MARCH 2020**  
**M. Sc. Chemistry Semester II**

**Paper Name: Organic Chemistry-II**

**Date: 02/03/2020**

**Paper Code: 11205151**

**Time: 1hr 30min**

**Max. Marks: 40**

**Instructions:**

- All questions are compulsory and options are given in first and second question only.
- Numbers to the right of question indicate the marks of respective question.

<b>Q. 1</b>	Attempt <b>any one</b> question of the following. A. 1. Differentiate between Hofmann Rule and Saytzeff rule with one example of each.  2. What are Ylides? Explain the mechanism of Wittig reaction.  B. 1. Name the reaction in which boronic acid & an organohalide are coupled & explain its mechanism. 2. Explain Sonogashira reaction with mechanism & give one example.	<b>(08)</b>
<b>Q. 2</b>	Attempt any three questions of the following. 1. Define functional group Interconversion with one example. 2. Give one reaction for protection of terminal alkynes. 3. Write a long note on Tebbe's Reagent. 4. Complete the following reaction & explain its mechanism.  5. Write a short note on applications of Organotin compounds.	<b>(12)</b>
<b>Q. 3</b>	Do as directed. Attempt all five questions. 1. Simmons-Smith reaction is used for ..... formation. 2. [2+2] Cycloaddition results in formation of ..... 3. Why moisture & air are excluded from Grignard Reagent? 4. What is Ullmann reaction? 5. Complete the following reaction & give its name.	<b>(05)</b>
<b>Q. 4</b>	Complete the following MCQs/Fill in the gaps/Short question & answer.	<b>(15)</b>

1	Dehydrohalogenation is also known as			
	(A)	$\beta$ -Elimination	(B)	Rearrangement
	(C)	Hydrolysis	(D)	None of the above
2	Cyclopentane is formed by			
	(A)	Reimer-Tiemann reaction	(B)	Conia-Ene reaction
	(C)	Zulan Reaction	(D)	All of the above

3	Solvent used in Wurtz reaction			
	(A)	Dry alcohol	(B)	Dry Water
	(C)	Dry ether	(D)	Dry Thiophene
4	Alcohols can be protected by converting them to			
	(A)	Ketones	(B)	Acids
	(C)	Esters	(D)	Ethers
5	Pyridinium chlorochromate (PCC) is used for			
	(A)	Oxidation of alcohols	(B)	Reduction of alcohols
	(C)	Dehydration of alcohols	(D)	Hydration of alcohols
6	Reaction of ethanediol with carbonyl compounds result in formation of			
	(A)	Glycerol	(B)	Acetal
	(C)	Glycol	(D)	All of these
7	A reaction that operates exclusively on one functional group in the presence of other functional groups			
	(A)	Regioselective	(B)	Stereoselective
	(C)	Chemoselective	(D)	Functional group interconversion
8	Azocyclotin is used as			
	(A)	Fungicide	(B)	Miticide
	(C)	Acaricide	(D)	Biocide
9	Corey-Nicolaou reagent is			
	(A)	2,2'-Dipyridyl disulfide & phosgene	(B)	2,2'-dipyridyl disulfide & triphenyl phosgene
	(C)	2,2'-dipyridyl disulfide & trimethyl phosgene	(D)	2,2'-dipyridyl disulfide & POCl <sub>3</sub>
10	DMDO is also referred as			
	(A)	Murray's Reagent	(B)	Elena's Reagent
	(C)	John's Reagent	(D)	Jack's Moiety
11	What is flood reaction?			
12	Give structure & use of TMSCl.			
13	Write preparation of Selenes.			
14	The precursor of Tebbe's reagent is _____.			
15	Corrin is a _____ ligand.			

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