

CHEMISTRY-12	Chapter # 10 (Complete) Test: C-3		
	Name:	Class:	ID:
Date: / /	Marks	40	Marks Obtained:
Time Allowed: 75 Min.	Total:		

Maximum Marks: 08 **(OBJECTIVE TYPE)** Time Allowed: 15 Min.

NOTE: Tick The Correct Option:

- Grignard reagent is reactive due to:
 - The presence of halogen atom
 - The presence of Mg atom
 - The polarity of C-Mg bond
 - None of the above
- Elimination bimolecular reactions involve:
 - First order kinetics
 - Second order kinetics
 - Third order kinetics
 - Zero order kinetics
- The most reactive alkyl halide is:
 - Alkyl iodide
 - Alkyl bromide
 - Alkyl chloride
 - Alkyl fluoride
- Isobutyl chloride is a _____ alkyl halide.
 - Primary
 - Secondary
 - Tertiary
 - All
- The main factor which affects the reactivity of alkyl halides:
 - Bond energy
 - Bond polarity
 - Bond order
 - Both 'a' & 'b'
- In alkyl halides, the carbon atom attached to halogen is:
 - An electrophile
 - A nucleophile
 - Neutral
 - None
- In E1 mechanism, a tertiary alkyl halide undergoes elimination of HX molecule in the presence of _____ to give alkene.
 - Aqueous acetone
 - Aqueous ethanol
 - Aqueous KOH
 - Alcoholic KOH
- Most reactions, shown by Grignard reagent, are:
 - Endothermic
 - Exothermic
 - Reversible
 - All
- Ethyl magnesium bromide reacts with _____ to form propanoic acid.
 - CO₂
 - Formaldehyde
 - Methanol
 - Cyanogen chloride

Maximum Marks: 32 **(SUBJECTIVE TYPE)** Time Allowed: 60 Min.

SECTION-I

- Q.2: Give brief answers to the following questions: (20)
- Differentiate between haloalkanes and alkyl halides.

- ii. Draw structural formulas of: a) Isobutyl chloride b) Methylene chloride
- iii. Why SOCl_2 is the best reagent to get alkyl halides from alcohols? Explain with reaction.
- iv. Why alkyl iodides are more reactive than alkyl fluorides?
- v. Define leaving group. Give one example.
- vi. Give mechanism of E_1 reactions.
- vii. What are Grignard reagents? How are they prepared?
- viii. How do Grignard reagents react with water and ammonia?
- ix. Give reaction of Grignard reagent with ethanol and cyanogen chloride.
- x. How does Grignard reagent react with ethylene epoxide?

SECTION-II

NOTE: Attempt All Questions:

(12)

Q.3: Discuss $\text{S}_{\text{N}}2$ reactions of alkyl halides in detail.

Q.4: Write down reactions of $\text{CH}_3\text{-CH}_2\text{-Cl}$ with: (i) Na (ii) Zn + HCl (iii) Na_4Pb (iv) Mg

Q.5: What are Grignard's reagent? How will you prepare a primary, secondary and tertiary alcohol with the help of Grignard's reagent?