City College

B.Sc Semester 3, Internal Assessment(nline), under CU 2020-21

CHEMISTRY- HONOURS Paper-CC-3-7 (Organic chemistry) Full Marks-10 Attempt all questions

1. What type of reaction takes place upon treatment of a ketone with HCN to form a cyanohydrin?

A) Nucleophilic addition

B) Nucleophilic substitution

C) Electrophilic addition

D) Electrophilic substitution

2. Which will be the main product upon bromination of phenyl benzoate with Br₂/AlBr₃?



3. Which gives a *para* nitro compound as the main product upon nitration with a nitric acid-sulfuric acid mixture?



4. Which of the following is rate determining step in electrophilic substitution reaction?

- A) Generation of electrophile
- B) Attack by an electrophilic reagent on benzene ring
- C) Formation of product
- D) All of the mentioned

- 5. How will you convert benzene into n-propyl benzene?
 - A) Friedel-Crafts Alkylation
 - B) Friedel-Crafts Acylation
 - C) Friedel-Crafts Alkylation followed by clemmensen reduction
 - D) Friedel-Crafts Acylation followed by clemmensen reduction
- 6. What do you use to create a tertiary alcohol using the Grignard reaction?
 - A) A ketone
 - B) An aldehyde
 - C) An alcohol
 - D) A carboxylic acid

7. Which of the following compounds gives a primary alcohol upon reaction with

phenylmagnesium bromide?

- A) 2-methyloxiraneB) ethylene oxide
- C) ethyl formate
- D) carbon dioxide
- 8. A Gilman reagent is...

A) R_2CuLi , B) RLi, C) R_2Zn , D) RMgBr

9. Which of the following predominantly gives the conjugate addition product with pent-3-en-2-one?

A) PhMgBr, B) PhLi, C) Ph₂CuLi, D) CH₃MgI

10) Which gives about 1:1 *p*- and *m*-methylanilines as the main products when treated with sodium amide in liquid ammonia?

