

V. P. & R. P. T. P. Science College, Vallabh Vidyanagar  
B. Sc. Industrial Chemistry Vocational (Semester-III) Internal Test  
Fundamental Aspect in Organic Chemistry

Date: 07/10/2019

Time: 03:00 p.m. to 4: 15 p.m.

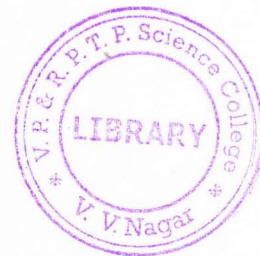
Subject Code: US03CICY23

Total Marks: 25

Q.1 Select the correct option

05

1. A nucleophile is \_\_\_\_\_.  
a. Lewis acid                      b. Electron deficient species  
c. An electron rich species      d. None of these
2. Resorcinol on distillation with zinc dust gives \_\_\_\_\_.  
a. Benzene    b. Cyclohexane    c. Toluene    d. m-xylene
3. Cannizzaro reaction is not given by \_\_\_\_\_.  
a. Formalehyde    b. Trimethylacetaldehyde    c. Acetaldehyde    d. Benzaldehyde
4. Aliphatic primary amines react with cold nitrous acids to form \_\_\_\_\_.  
a. Alcohols    b. Diazonium salts    c. Nitriles    d. Nitroalkanes
5. Hinsberg's reagent is \_\_\_\_\_.  
a. Pd+BaSO<sub>4</sub>                      b. p-toluene sulphonic acid  
c. NH<sub>2</sub>NH<sub>2</sub>+KOH                  d. Benzenesulfonyl chloride



Q.2 What are Carbnions and Carbocations? How they are generated? Mention few reactions involving them. Illustrate your answer with suitable examples.

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OR

Q.2 Write a note on: a) Inductive effect b) Hydrogen Bond

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Q.3 Write a note on "Oxymercuration-demercuration" for preparation of alcohol.

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OR

Q.3 Write a note on acid/base catalyzed cleavage of epoxide.

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Q.4 Write a note on Hell-Volhard-Zelinsky reaction.

05

OR

Q.4 Write a note on Grignard synthesis of a carboxylic acid.

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Q.5 Write a note Hinsberg's Test.

05

OR

Q.5 Give the following synthesis: a) *m*- bromophenol from nitrobenzene. b) *p*- bromo aniline from aniline. 05