

B.Pharm. (CBCS Pattern) Semester - III
BP301T - Pharmaceutical Organic Chemistry-II

P. Pages : 3

Time : Three Hours



GUG/S/23/10884

Max. Marks : 75

- Notes :
1. Diagrams and Chemical equation should be given wherever necessary.
 2. Illustrate your answers wherever necessary with the help of neat sketches.
 3. All questions are compulsory.

1. Multiple Choice Questions.

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- 1) Nitration of benzene molecule shows reaction of
 - a) Nucleophilic substitution
 - b) Electrophilic substitution
 - c) Addition Reaction
 - d) All of the above
- 2) Huckel Rule is also known as-
 - a) $(4n + 2)\pi$ rule
 - b) $(4n + 1)\pi$ rule
 - c) $(4n + 2)\sigma$ rule
 - d) $(4n + 1)\sigma$ rule
- 3) Phenol is-
 - a) Solid
 - b) Crystalline solid
 - c) Gas
 - d) Liquid
- 4) The following reaction is
$$\text{C}_6\text{H}_6 + \text{R} - \text{Cl} \xrightarrow[\text{AlCl}_3]{\text{Anhyd.}} \text{C}_6\text{H}_5\text{R} + \text{H} - \text{Cl}$$
 - a) Friedal Craft's acylation
 - b) Friedal Craft's alkylation
 - c) Xliteration
 - d) Halogenation
- 5) Phenol can be distinguished from ethanol by the reaction with.
 - a) Br_2/water
 - b) Na
 - c) Neutral FeCl_3
 - d) All
- 6) Picric Acid forms when phenol reacts with.
 - a) Hydrogen
 - b) Nitric acid
 - c) Sulphuric acid
 - d) Formaldehyde
- 7) Aldehydes and Ketones an reductive amination give.
 - a) 1° amine
 - b) 2° amine
 - c) 1° or 2° amine
 - d) 3° amine
- 8) Electron releasing group on aromatic amines.
 - a) Decrease the basicity
 - b) Increase the basicity
 - c) Neutral the basicity
 - d) None of above
- 9) Acyl chlorides are made by reacting aromatic acids with.
 - a) PCl_3
 - b) PCl_5
 - c) SOCl_2
 - d) All of the above

iii) Write a detailed note on Friedal Craft's Alkylation and Friedal Craft's acylation.

3. Short answer questions solve **any seven**.

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i) Explain Coulson and Moffitt's modification.

ii) Explain Baeyer's strain theory.

iii) Write short note on-

a) Iodine value

b) Saponification value

iv) How will you synthesize anthracene?

v) Write a note on sulphonation & nitration.

vi) Explain effect of electron withdrawing groups on the basicity of aromatic amines.

vii) How do you explain acidic nature of phenols.

viii) Give synthetic application of aryl diazonium salts.

ix) Give any two methods for preparation of benzoic acid.
