

Bachelor of Pharmacy (B.Pharm) Fourth Semester
BP402 - Pharmaceutical Organic Chemistry-II

P. Pages : 1

Time : Three Hours



GUG/W/18/1165

Max. Marks : 80

- Notes :
1. All questions carry equal marks.
 2. Assume suitable data wherever necessary.
 3. Diagrams and Chemical equation should be given wherever necessary.
 4. Discuss the reaction, mechanism wherever necessary.
 5. Que No. 1 is compulsory, solve **any four** Ques from remaining.

1. Write the synthesis of any four of the following from Benzene or Toluene. **16**
 - a) Benzoic acid.
 - b) P-chlorobenzoic acid.
 - c) M-Dinitrobenzene.
 - d) P-Aminotoluene.
 - e) P-nitrobenzoic acid.
2. a) Write different methods of preparation of alkyl halide. **8**
b) Explain SN_1 reaction and its mechanism. **8**
3. a) What is aromaticity comments on electrophilic aromatic substitution reaction with examples. **8**
b) What are amines. Give its classification, Discuss any two reactions of aromatic amines. **8**
4. Give any three methods of preparation of alcohols and carboxylic acid. **16**
5. a) Explain in details about the acidity of carboxylic acid. **8**
b) Explain in details about the basicity of amines. **8**
6. a) Write in details about Bayer strain theory. **8**
b) Explain Cannizzaro reaction. **8**
7. Write a note on following **any four**. **16**
 - a) Racemic modification.
 - b) Reimer-Tiemann reaction.
 - c) Stability of Benzene.
 - d) Sequence Rule.
 - e) Orbital picture of benzene.
