

Course : B. Pharmacy

Sem: III

Subject Name: Pharmaceutical Organic Chemistry-II

Subject Code: BP301T

Max Marks : 75

Duration : 3Hr.

Instructions:

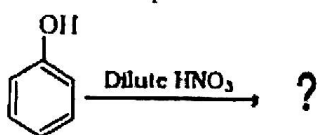
1. All questions are compulsory
2. Draw diagrams / figures wherever necessary
3. Figures to right indicate full marks

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Q. 1. Objective Type Questions (Answer all the questions)

(10 x 2) = 20

- i) Define saponification value. Give its significance.
- ii) Draw structure and give medicinal uses of naphthalene.
- iii) Write synthetic uses of aryl diazonium salts.
- iv) Predict the product:



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- v) Discuss limitations of Friedel crafts alkylation.
- vi) Draw structure and write uses of BHC.
- vii) Give reason: Though halogens are o,p-directors, they are ring deactivators.
- viii) Draw structures of derivatives of anthracene and phenanthrene.
- ix) Write Huckel's rule of aromaticity with suitable example.
- x) Write any two reactions of cyclopropane.

Q. 2. Long Answers (Answer 2 out of 3)

(2 x 10) = 20

- i) What are phenols? Explain acidity of phenols. Write any three methods of preparation and three reactions of phenols.
- ii) Enlist analytical constants of oils and fats. Discuss in detail about iodine value and Reichert-Meissl value and give their significance.
- iii) Discuss analytical, synthetic and other evidences in the derivation of structure of benzene.

Q. 3. Short Answers (Answer 7 out of 9)

(7 x 5) = 35

- i) Discuss Baeyer's strain theory with its limitations.
- ii) Explain hydrogenation and saponification reactions of fats and oils.
- iii) Write ring substitution reactions of aromatic amines. Discuss effect of substituents on basicity of aromatic amines.
- iv) Draw resonance structures of phenol and aniline.
- v) Define aromatic electrophilic substitution reaction. Explain mechanism of nitration and sulphonation of benzene.
- vi) Write methods of synthesis and reactions of cycloalkanes.
- vii) Give reason. Naphthalene undergoes electrophilic substitution reactions preferentially at α position.
- viii) Give any two methods of preparation and reactions of benzoic acid.
- ix) Explain structure, synthesis and medicinal uses of Diphenylmethane.

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