

Vidya prasarak mandal's
B.N. Bandodkar college of Science, Thane
Semester IV Examination 2014
S.Y.B.Sc. [USCH 403]

Duration 2 hrs

Marks 60

N. B. :

1. All the questions are compulsory.
2. Figures to the right indicate full marks.
3. Use of log table/ non programmable calculator is allowed.

- Q.1
- a Explain Gattermann reaction with mechanism. 4
OR
a Explain Reimer-Tiemann reaction with mechanism. 4
OR
b Explain diazotization reaction with mechanism. 4
OR
b Explain Sandmeyer reaction of benzene diazonium chloride. 4
c Explain Vilsmeier-Haack formylation reaction with mechanism. 4
OR
c Explain Hofmann reaction with mechanism. 4
d How will you prepared Hydrazobenzene from aniline. 3
OR
d Give the synthesis of Congo Red. 3
- Q.2
- a Write a note on Kolbe-Schmidt Reaction. 4
OR
a Distinguish between Carboxylic acid and sulphonic acid. 4
b How benzoic acid converted into -i) benzoyl chloride ii) Benzamide iii) Benzoic anhydride, iv) benzoic ethanoic anhydride. 4
OR
b What are the importances of salicylic acid? Write its reactions. 4
c Write a note on electrophilic substitution of phenol. 4
OR
c Explain "Streodescription to chiral centers. 4
d Write a note on Geometrical isomers of butenedioic acids. 3
OR
d How will convert Naphthalene to 1- Naphthalene sulphonic acid and 2- Naphthalene sulphonic acid? 3

Page no (1)
PTO

- Q.3 a Explain atom economy with suitable example. 4
- OR
- a What is meant by green chemistry? Write ITS approach in chemical processes? 4
- b Write need and importance of green chemistry. 4
- OR
- b Explain the concept of selectivity in chemical reactions with examples? 4
- c Explain synthesis of Methanol from syn gas? 4
- OR
- c Write any four principles of green chemistry. 4
- d Explain formation of ethyl benzene from benzene with flow chart? 3
- OR
- d Calculate atom economy of Diels-Alder reaction. 3
- Q.4 A Answer the followings -
- a Explain Canizzaro's Reaction. 3
- OR
- a Explain Benzoin Condensation. 3
- b Give the synthesis of Methyl orange. 2
- OR
- b Explain concept of Chromophore and Auxochrome. 2
- B Answer the followings -
- a Write any three structures of monocarboxylic acid. 3
- OR
- a Explain the role of any two oxidizing agents. 3
- b Explain Stereogenic Centre. 2
- OR
- b Explain- ipso position. 2
- C Answer the followings -
- a What are uses of Styrene? 2
- OR
- a What are uses of Ethylene oxide? 2
- b Explain E-factor with example. 2
- OR
- b What are the advantages of using bio catalysts? 2
- c Draw the structure of p-Cresol? 1
- OR
- c What is Syn Gas? 1