

Tanta University Final Examination in Organic I for level tow students

Faculty of Science (zeology, entomology and geology sections)

Chemistry Departement Jan. 2014 Time allowed: 2hrs

Answer the follwing questions:

1] Starting with benzene how can you prepare the follwing :

- a) Saccharine b) o- Hydroxy acetophenone c) Methyl Orange indicator
d) Phenyl- azo β - naphthol e) 1,3,5 – Trinitro benzene f) m – Dichloro benzene
g) 1- Phenyl butane h) Supha – drug i) Asprine j) Picric acid

(40 marks)

2] Discuss the follwing with equations :

- a) Elimination – Addition mechanism of nuceophilic substitution reaction in aromatic compounds
b) Alkylation of benzene
c) Limitation of Friedl- Craft reaction
d) Mechanism of the synthesis of phenol from Cumene
e) Reaction of both N, N- dimethyl aniline and 2,6 – methyl N,N-dimethyl aniline with diazonium chloride.

(30 marks)

3] Show with equations the follwing :

- a) Reaction of Dizonium salt with loss of nitrogen
b) Transformation of aniline to o- bromo aniline
c) Synthesis of m- bromo aniline from aniline
d) Reaction of 1°, 2°, and 3° aromatic amines with nitrous acid
e) Nitration of phenol

(30 marks)

GOOD LUCK

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