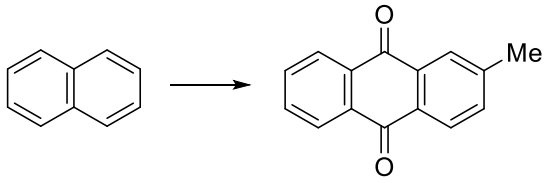
Gurudas College

Department of Chemistry
Internal Assessment 2020
SEM-V
Paper: CC-5-12Th

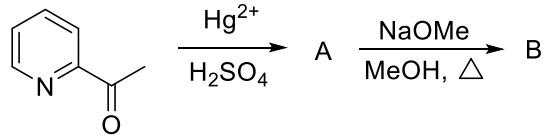
Time: 30 Minutes FM: 10

Answer any five questions of the following: 5×2=10

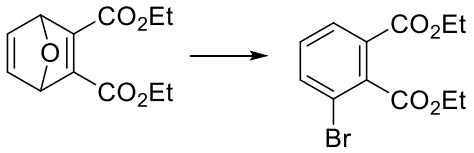
1. What happens when *cis*- and *trans*- isomers of 3-hydroxycyclohexane carboxylic acid are heated separately.
2. *Trans* 4-*t*-butyl cyclohexane carboxylic acid is more acidic than *cis*- isomer-explain.
3. How can you prepare glycine by Strecker synthesis?
4. Carry out the following conversion.



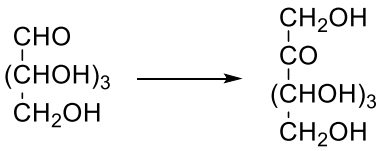
5. How can you prepare phenanthrene from naphthalene by Howarth synthesis?
6. Identify (A) and (B) in the following sequence of reaction:



7. Carry out the following transformation.



8. Carry out the following transformation.



9. Though the *exo* product is more stable Diels-Alder reaction between cyclopentadiene and acraldehyde gives the *endo* product. Explain.
10. Give the products and state their stereochemistry.