

UG 4th Semester Examination 2022

CHEMISTRY

[HONOURS]

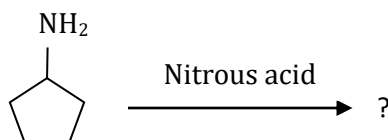
Course Code: CEMHT-10 (Organic)

Full Marks: 10

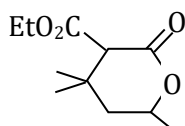
Answer any *five* questions from the following:

[2x5=10]

1. Give an example of Eschweiler-Clarke methylation reaction showing its mechanistic pathway.
2. Write a short note on Henry reaction showing the mechanistic pathway.
3. How hydrazone can be prepared from α , β -ketoacid? Show its mechanism.
4. Predict the product of the following reaction obtained via rearrangement pathway and show its mechanism:



5. Sketch the retrosynthetic pathway for the synthesis of the following compound:



6. Define anisotropic effect in ¹H-NMR spectrum with an example.
7. Calculate the λ_{max} value of absorption spectra of the following compounds using Woodward empirical rule:

