

UG 4<sup>th</sup> Semester Examination 2020

CHEMISTRY

[HONOURS]

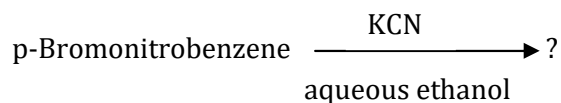
Course Code: CEMHT-10 (Organic)

Full Marks: 10

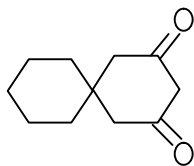
Answer any *five* questions from the following:

[2x5=10]

1. Give an example of Mannich reaction showing its mechanistic pathway.
2. Write the product and reaction mechanism of the following reaction :



3. Write the name and mechanism of the reaction in which phenylhydroxylamine gives 4-aminophenol in strong aqueous acid.
4. What is umpolung reaction? Give an example.
5. Sketch the retrosynthetic pathway for the synthesis of the following compound:



6. Define anisotropic effect in <sup>1</sup>H-NMR spectrum with an example.
7. Calculate the  $\lambda_{\text{max}}$  value of absorption spectra of the following compounds using Woodward empirical rule:

