

UG 6<sup>th</sup> Semester Examination 2022

CHEMISTRY [HONOURS]

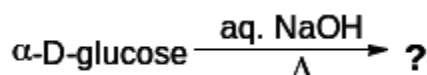
Course Code: CHEM-H-CC-T-14

Full Marks: 10

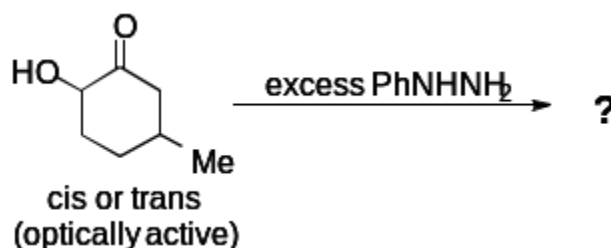
*Answer any five questions*

[2×5=10]

1. Identify the following Fischer projections as either D or L glyceraldehyde.
2. Predict the products of the following reaction indicating the mechanism:



3. Complete and explain the following observation:



4. Why benzoyl group cannot be used as a N-protecting group in peptide synthesis?
5. Write the sequence of steps involved in the formation of 6-deoxy-D-glucose from D-glucose.
6. Why is RNA and not DNA sensitive to alkaline hydrolysis?
7. What is the unique role of Cystein and Cystine in polypeptide structure?
8. What is secondary orbital interaction in [4+2] cyclo-addition of cyclopentadiene and malic anhydride?