

# CARBOHYDRATES

1.

Lecture-6

21-05-2020

Topic - Osazone Formation

Deg-II (Hons.&Sub.)

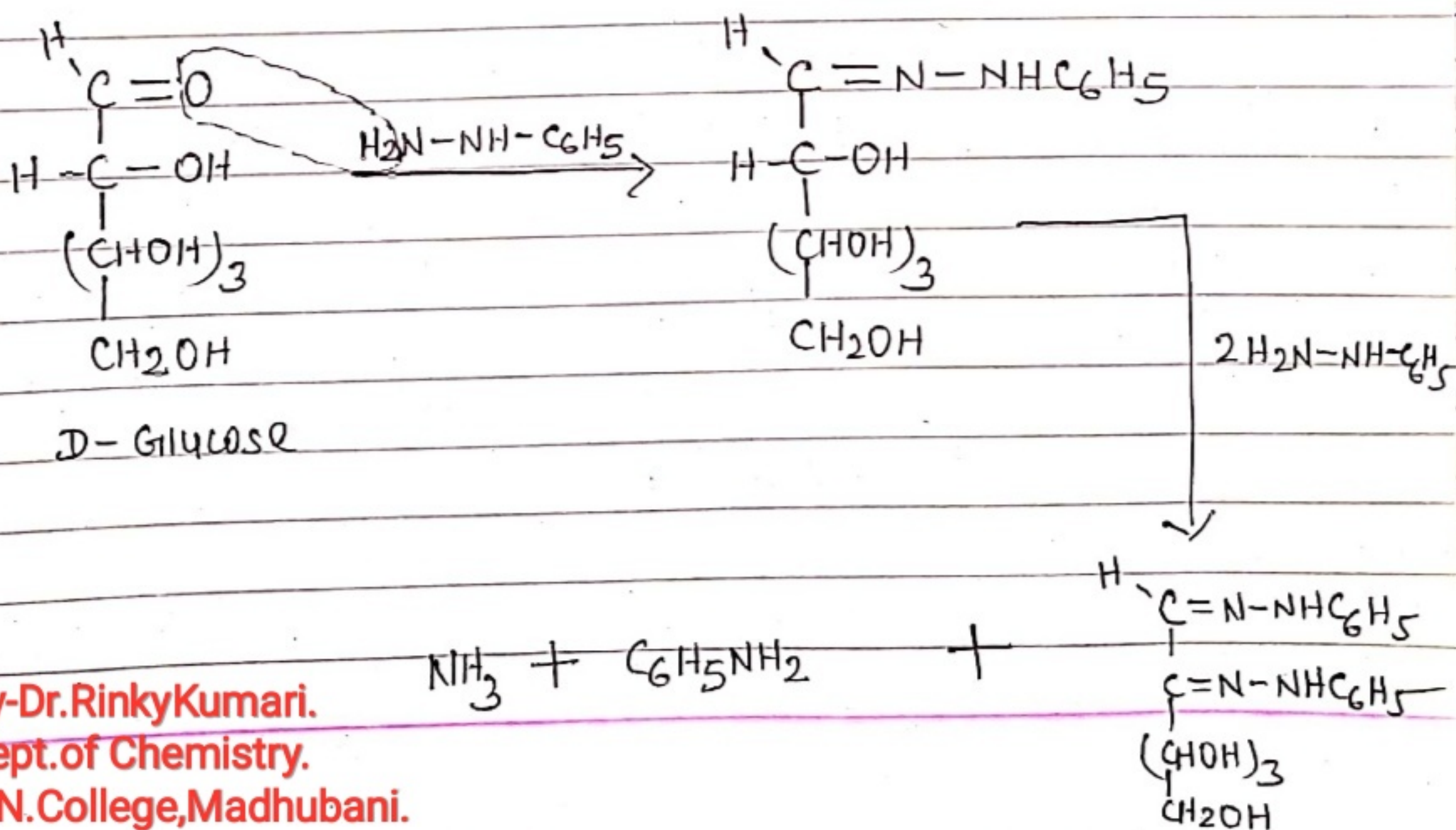
P-IV, Ch-3 Ch-3, G-'C'

Reaction with phenylhydrazine (OSAZONE FORMATION)

D-Glucose reacts with phenylhydrazine to give the soluble D-glucose phenylhydrazone.

However in the presence of excess phenylhydrazine the phenyl hydrazone reacts further to form dihydrazone called D-glucosazone, aniline and ammonia.

This reaction was discovered by Emil Fischer in 1887.

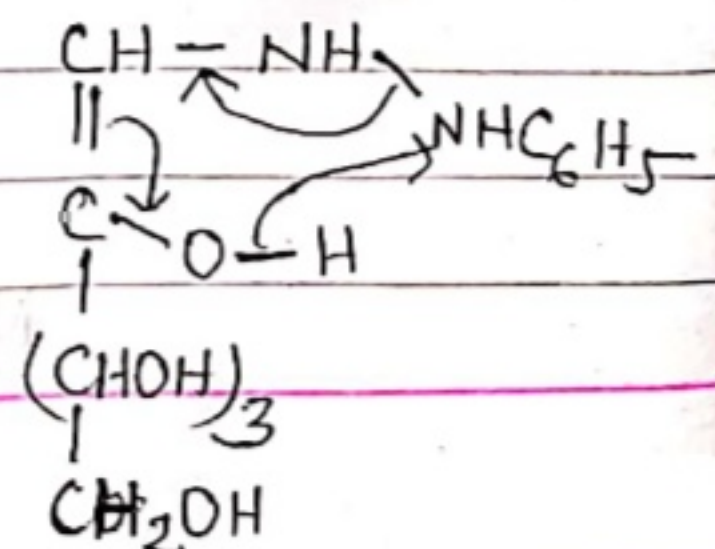
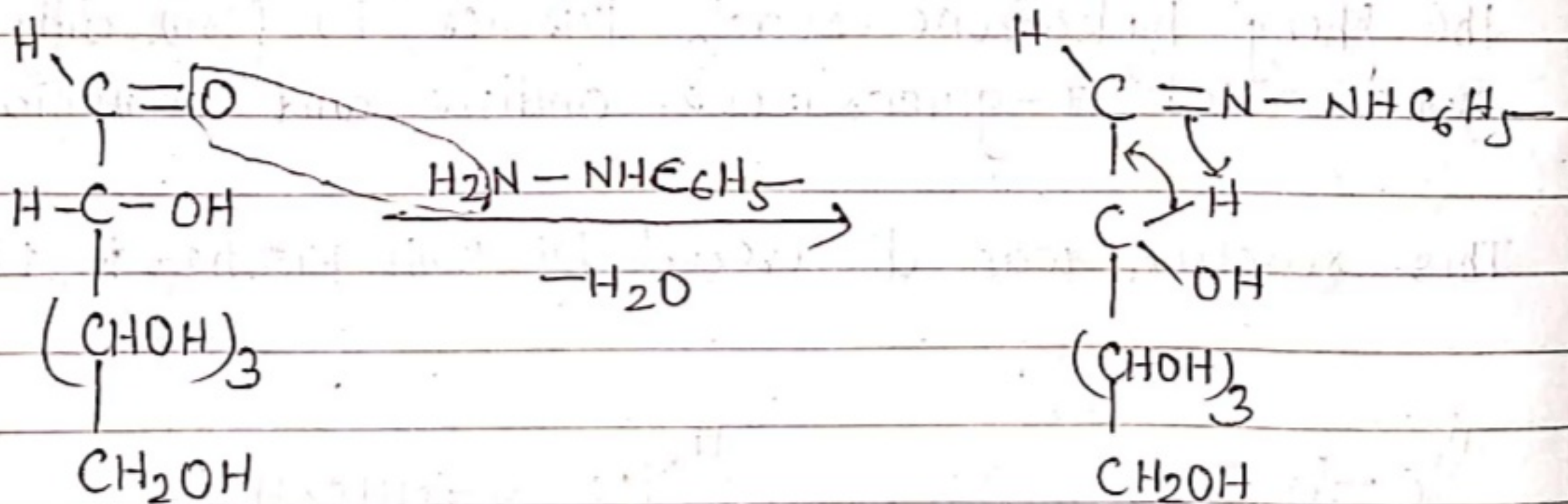


Mechanism

Proposed by Weygand and Semyakin (1965)

According to this mechanism, the first formed phenyl hydrazone undergoes a rearrangement through a cyclic intermediate in which the secondary hydroxyl at C-2 becomes a ketone group.

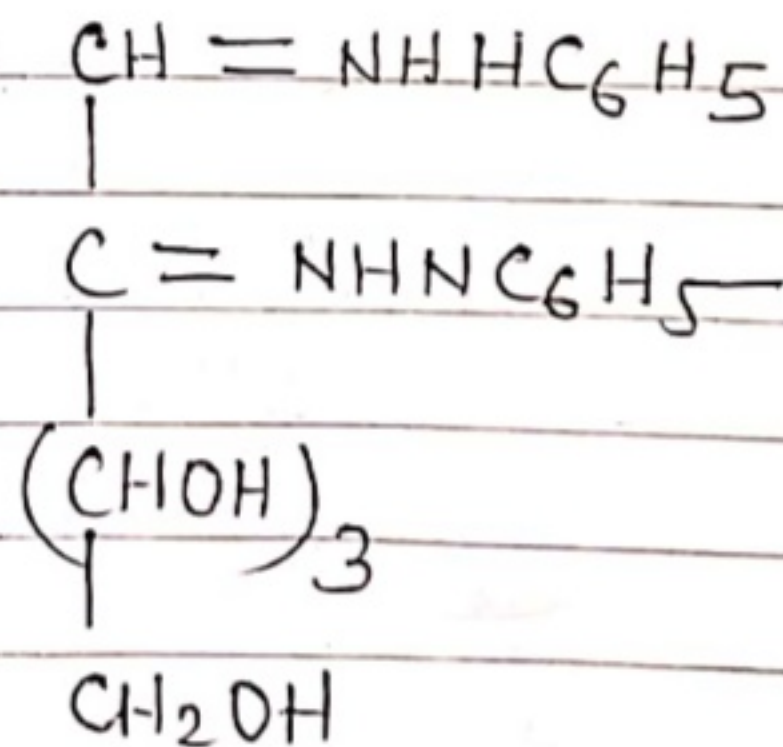
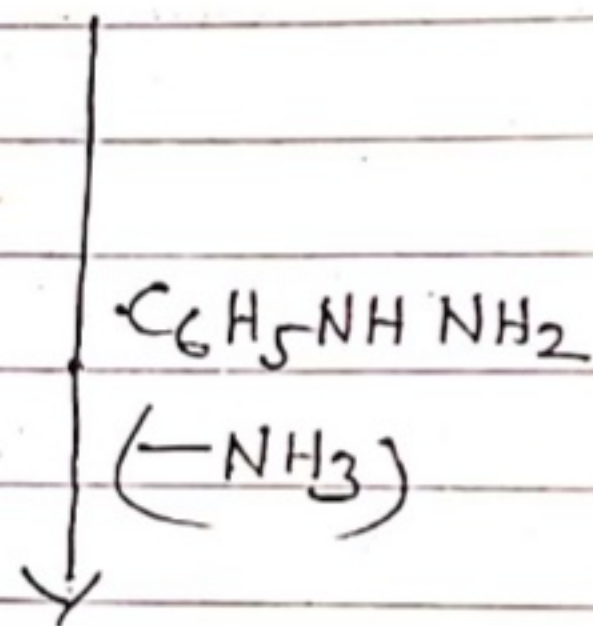
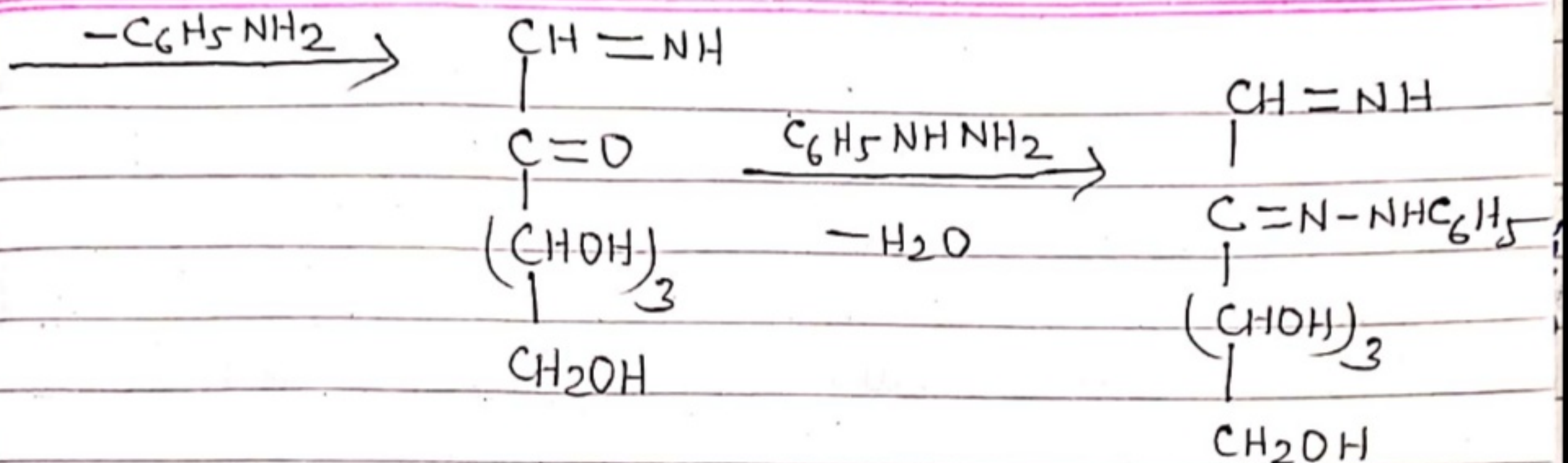
This ketone group then condenses with phenyl hydrazine to form osazone.



**Mechanism Continued..**

# Mechanism Continued..

3.



D-Glucosazone

~Completed~