

# ORGANIC CHEMISTRY , PAPER-VII

1.

08/09/2020 DEGREE-III ( H) By- Dr.Rinky

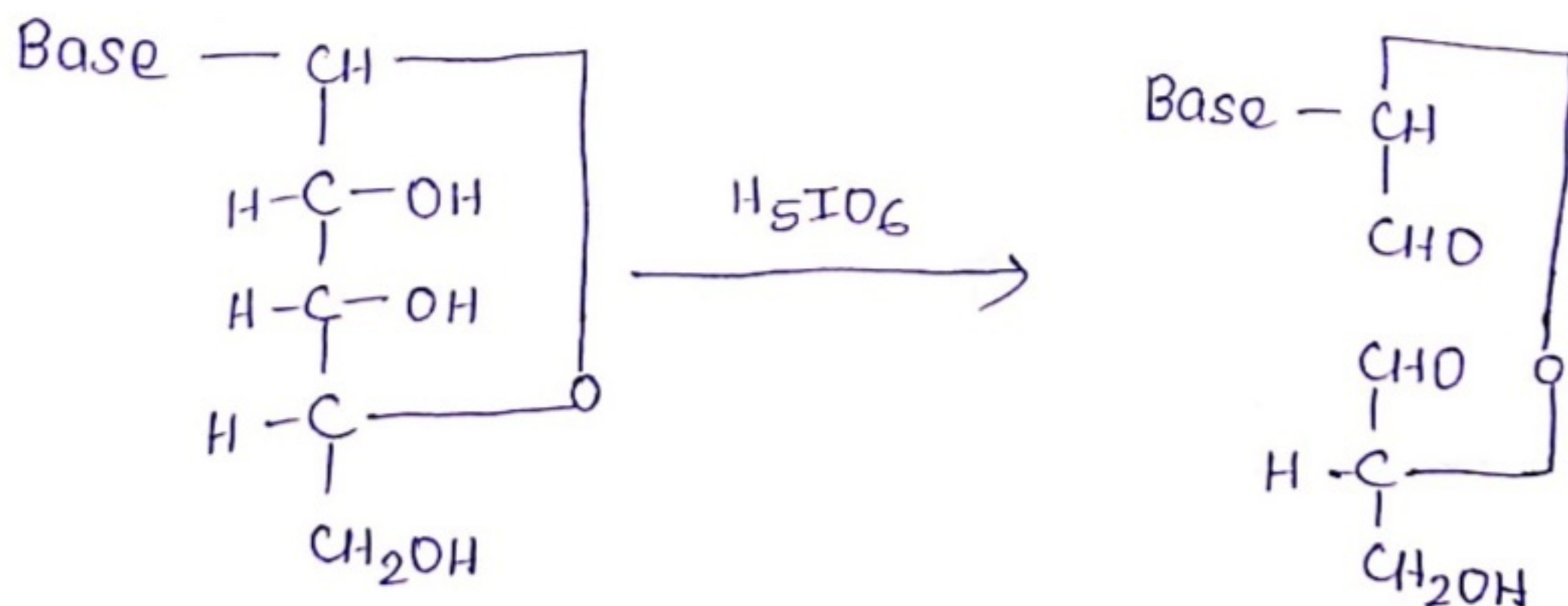
## SYNTHETIC REAGENTS ,LECTURE-21

### TOPIC :- PERIODIC ACID

#### SYNTHETIC USES OF PERIODIC ACID CONTINUED..

#### 2. SIZE OF THE RING & CONFIGURATION OF NUCLEOSIDES

\* Periodic oxidation of nucleosides shows that the size of the ring in nucleosides is furanose as it consume only one molecule of  $H_5IO_6$ . Had the ring been pyranose, two molecules of  $H_5IO_6$  would have been consumed.

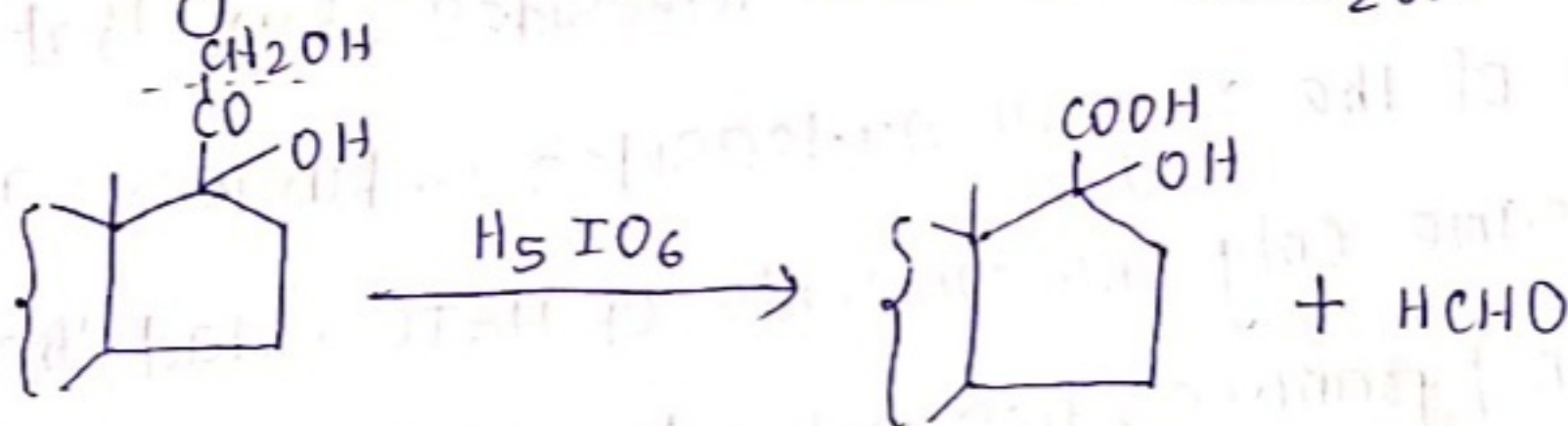


Ribonucleoside

\* Moreover,  $H_5IO_6$  oxidation is also employed in studying the position of phosphate group in nucleotides.

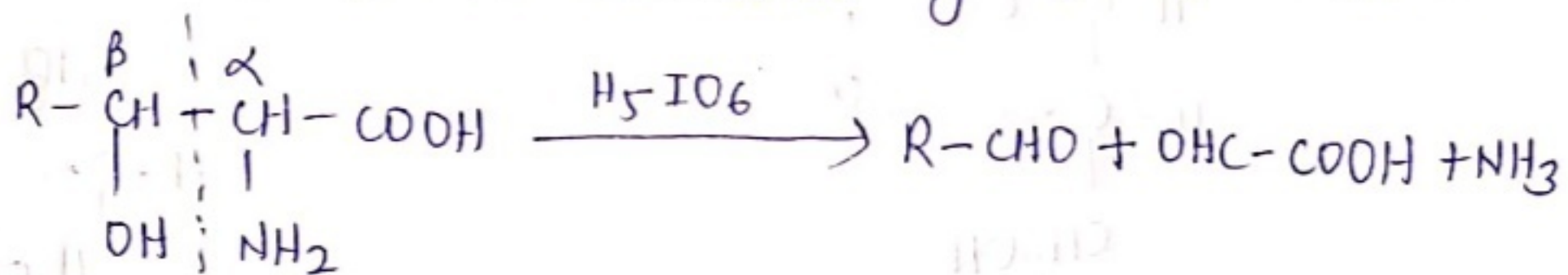
### 3. Investigation of the side chain adrenal cortical steroids

Adrenal cortical hormones having the following side chain forms a molecule of HCHO and hydroxy acid indicating that the side chain is  $-COCH_2OH$ .



### 4. Estimation of Amino Acids

\* The  $\beta$ -hydroxy  $\alpha$ -amino acids such as serine and threonine can be estimated by  $H_5IO_6$  oxidation.



Serine =  $R=H$  , Threonine =  $R=CH_3$

\* The amount of ammonia liberated gives total amount of the two amino acids.

**Periodic Acid**  
**Completed**