

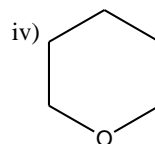
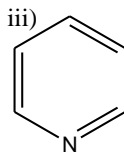
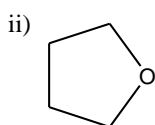
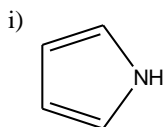
**NORTH GAUHATI COLLEGE**  
**SESSIONAL EXAMINATION-2025**  
**FYUGP SEMESTER-IV**  
**SUB: CHEMISTRY Major/ Minor**  
**Paper name: Organic Chemistry-1**  
**Paper code: CHE0400204**

**TOTAL MARKS: 30**

**TIME: 1½ Hr**

*The figures in the margin indicate full marks for the questions.*

1. How will you prepare acetic acid starting from a Grignard reagent? Give the mechanism of Dickmann Condensation. 2+3=5
2. Arrange the following in decreasing order 1x2=2
  - a)  $\text{HCOOH}$ ,  $\text{CH}_3\text{COOH}$ ,  $\text{H}_2\text{O}$ ,  $\text{CH}_3\text{OH}$
  - b)  $\text{CH}_3\text{NH}_2$ ,  $(\text{CH}_3)_2\text{NH}$ ,  $\text{C}_6\text{H}_5\text{NH}_2$ ,  $\text{C}_6\text{H}_4\text{NH}_2\text{NO}_2$
3. How can you distinguish  $1^\circ$ ,  $2^\circ$  and  $3^\circ$  amine with the help of Hinsberg reagent? 3
4. Give the preparation of the following (any three) 2x3=6
  - a) Nitro compound,      b)  $2^\circ$  amine,      c) Glycine      d) Isonitrile
5. Give the IUPAC name of the following 1x4=4



6. How can you prepare pyrrole from acetylene? Give the iodination reaction of pyrrole. 2+2=4
7. Discuss the acidic and basic character of pyrrole. Compare the basic character of pyridine with pyrrole and tertiary aliphatic amine. 3+3=6

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