

**SOVARANI MEMORIAL COLLEGE**  
**INTERNAL EXAMINATION - 2022**  
**PAPER: CEMA-CC-4-8-TH (SEM – IV)**  
**ORGANIC CHEMISTRY**

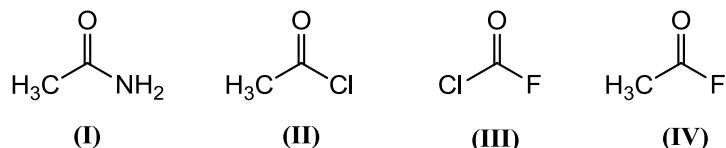
Full Marks – 10.

Time – 30 min

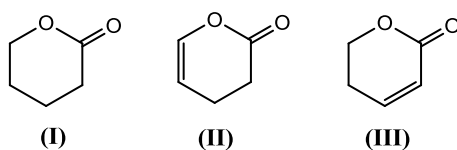
Answer any five

(2 x 5 = 10)

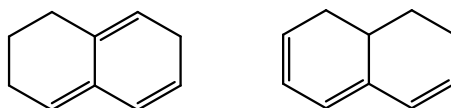
1. Arrange the following carbonyl compounds in order of increasing carbonyl stretching frequency.



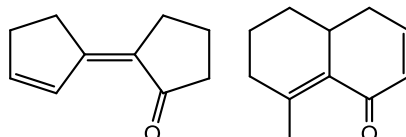
2. Arrange the following lactones in order of increasing carbonyl stretching frequency



3. Calculate  $\lambda_{max}$  value for the following compounds



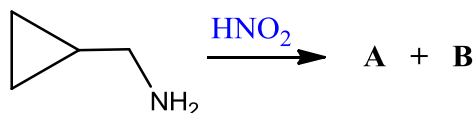
4. Calculate  $\lambda_{max}$  value for the following compounds



5. How many  $^1\text{H}$ NMR signal would you expect from  $\text{CH}_3\text{CH}_2\text{CHClCH}_3$  ?

6. Why super conducting magnet is used in NMR spectroscopy?

7. Identify the products A and B from the following reaction



8. Identify the product with suitable mechanism.

