

Roll No.


**PRESIDENCY
UNIVERSITY**
BENGALURU

Department of Research & Development
Mid - Term Examinations - SEPTEMBER 2024

Odd Semester: Ph.D. Course Work	Date: 28 /09/2024
Course Code: CHE 801	Time: 2:00pm – 3:30pm
Course Name: Organic Spectroscopy	Max Marks: 50
Department: Chemistry	Weightage: 25%

Instructions:

(i) Read all questions carefully and answer accordingly.

(ii) Do not write anything on the question paper other than roll number.

Part A

Answer ALL the Questions. Each question carries 5 marks.		4Qx5M=20M
1	Write a note on Beer-Lambert's law and the deviations from Beers law	5 Marks
2	Describe the Bathochromic, Hypsochromic, Hyper chromic and Hypo chromic shifts	5 Marks
3	Discuss the fundamental modes of vibrations-stretching and bending vibrations in IR spectroscopy	5 Marks
4	Mention the factors effecting Vibrational frequency	5 Marks

Part B

Answer ALL Questions. Each question carries 15 marks.		2QX15M=30M
5	Explain the UV absorption of carbonyl compounds: α,β -unsaturated carbonyl systems.	15 Marks
6	With necessary examples, explain the Fingerprint region in FT-IR and its importance	15 Marks