

Name. _____		Printed Pages:01		
Student Admn. No.: _____				
School of Medical and Allied Sciences Summer Term Examination – July - August 2024 [Programme: M.Pharm.] [Semester: I] [Batch: Summer 2023-24]				
Course Title: Modern Pharmaceutical Analytical Techniques Course Code: MPL101T/MPC101T		Max Marks: 100 Time: 3 Hrs.		
Instructions:	1. All questions are compulsory. 2. Assume missing data suitably, if any.			
		K Level	COs	Marks
SECTION-A (15 Marks)		5 Marks each		
1.	Demonstrate the types of electronic transitions in a molecule in UV region	K2	CO1	5
2.	Summarize inductive effect on chemical shift in NMR spectroscopy.	K2	CO2	5
3.	Explain coupling constant in NMR spectroscopy.	K2	CO2	5
SECTION-B (40 Marks)		10 Marks each		
4.	Illustrate the instrumental components of IR spectrophotometer.	K2	CO1	10
5.	Identify the instrumental components of NMR spectrophotometer.	K3	CO2	10
6.	Analyze the principle and applications of mass spectrometry.	K4	CO3	10
7.	Organize the principle, functioning and applications of potentiometry.	K3	CO6	10
SECTION-C (45 Marks)		15 Marks each		
8.	Categorize the detectors used in mass spectrometer.	K4	CO3	15
9.	Assess the practical requirements of paper chromatography.	K5	CO4	15
10	Estimate instrumentation and applications of paper electrophoresis.	K5	CO5	15