

QUESTION BANK

BP 701T: INSTRUMENTAL METHODS OF ANALYSIS

**UNIT 3: INTRODUCTION TO CHROMATOGRAPHY, COLUMN
CHROMATOGRAPHY, TLC, PAPER CHROMATOGRAPHY, ELECTROPHORESIS**

S.NO	QUESTION TYPE	QUESTIONS	MAPPING TO TNMGRMU, GPAT, NIPER, VARIOUS PHARMA COMPANY WITH YEAR	BLOOM'S TAXONOMY
1	2-Marks	What is Rf value? How is it determined?	TNMGRMU (Dec 2021, May 2024), GPAT (2021, 2024), NIPER (2021, 2024), Dr. Reddy's 2024	Remembering
2	2-Marks	Name two inorganic adsorbents used in TLC.	TNMGRMU (Dec 2023), GPAT (2023, 2024), NIPER (2023, 2024), Lupin 2023	Remembering
3	2-Marks	What is the edge effect in chromatography?	TNMGRMU (May 2022, Oct 2024), GPAT (2022, 2024), NIPER (2022, 2024), Aurobindo 2024	Remembering
4	2-Marks	Write two applications of Paper Chromatography.	TNMGRMU (May 2022), GPAT (2022, 2023), NIPER (2022, 2023), Sun Pharma 2022	Remembering
5	2-Marks	What are two grades of paper used in Paper Chromatography?	TNMGRMU (May 2024), GPAT (2024), NIPER (2024), Cipla 2024	Remembering
6	2-Marks	List two applications of Capillary Electrophoresis.	TNMGRMU (Dec 2023), GPAT (2023, 2024), NIPER (2023, 2024), Glenmark 2023	Remembering
7	2-Marks	What is normal phase chromatography?	TNMGRMU (May 2022), GPAT (2022, 2023), NIPER (2022, 2023), Mylan 2022	Remembering
8	2-Marks	Define resolution in chromatography.	TNMGRMU (Mar 2023, May 2024), GPAT (2023, 2024),	Remembering

			NIPER (2023, 2024), Abbott 2024	
9	2-Marks	What is silica gel GF?	TNMGRMU (Dec 2021), GPAT (2021, 2022), NIPER (2021, 2022), Maiva 2021	Remembering
10	2-Marks	Name two factors affecting electrophoretic mobility.	TNMGRMU (Dec 2021), GPAT (2021, 2023), NIPER (2021, 2023), Freedom Pharma 2021	Remembering
11	5-Marks	Explain the preparation and activation of TLC plates.	TNMGRMU (Dec 2021, Mar 2023, Oct 2024), GPAT (2021, 2023, 2024), NIPER (2021, 2023, 2024), Lupin 2024	Understanding
12	5-Marks	Describe the different detection techniques used in Paper Chromatography.	TNMGRMU (Dec 2021, May 2022, Dec 2023, Oct 2024), GPAT (2021, 2022, 2023, 2024), NIPER (2021, 2022, 2023, 2024), Sun Pharma 2024	Understanding
13	5-Marks	Write a note on the principle and applications of Gel Electrophoresis.	TNMGRMU (Dec 2021, Oct 2022, May 2024), GPAT (2021, 2022, 2024), NIPER (2021, 2022, 2024), Dr. Reddy's 2024	Applying
14	5-Marks	Explain the methodology and advantages of Adsorption and Partition Column Chromatography.	GPAT (2022, 2023), NIPER (2022, 2023), Aurobindo 2023, Glenmark 2022	Understanding
15	5-Marks	Discuss the development techniques used in Paper Chromatography.	TNMGRMU (Dec 2021), GPAT (2021, 2024), NIPER (2021, 2024), Cipla 2021	Analyzing
16	5-Marks	Write a note on the factors affecting R _f values in TLC.	GPAT (2023, 2024), NIPER (2023, 2024), Mylan 2023, Abbott 2024	Applying
17	5-Marks	Explain the principle and applications of Paper Electrophoresis.	TNMGRMU (Dec 2021), GPAT (2021,	Understanding

			2023), NIPER (2021, 2023), Lupin 2021	
18	10-Marks	Explain the principle, preparation, procedure, and detection methods in Column Chromatography.	TNMGRMU (Aug 2023), GPAT (2023, 2024), NIPER (2023, 2024), Sun Pharma 2023	Understanding
19	10-Marks	Discuss the principle and instrumentation of Capillary Electrophoresis.	TNMGRMU (Dec 2021), GPAT (2021, 2024), NIPER (2021, 2024), Dr. Reddy's 2021	Analyzing
20	10-Marks	Explain the theory, methodology, and applications of Paper Chromatography.	GPAT (2022, 2023), NIPER (2022, 2023), Aurobindo 2022, Glenmark 2023	Understanding
21	10-Marks	Describe the principle, methodology, and applications of Thin Layer Chromatography (TLC).	GPAT (2021, 2024), NIPER (2021, 2024), Cipla 2021, Lupin 2024	Understanding
22	10-Marks	Discuss the factors affecting electrophoretic mobility and the applications of electrophoresis.	GPAT (2023, 2024), NIPER (2023, 2024), Mylan 2023, Abbott 2023	Analyzing