



Roll No:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

BPHARM
(SEM VII) THEORY EXAMINATION 2023-24
INSTRUMENTAL METHODS OF ANALYSIS THEORY

TIME: 3 HRS

M.MARKS: 75

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt all questions in brief. 10 x 2 = 20

a.	Define auxochromes with examples.
b.	What do you understand by quenching?
c.	Write the use of thermocouples.
d.	Enumerate few applications of Flame photometry.
e.	What is the principle behind TLC?
f.	What type of medium is used for electrophoresis?
g.	Enumerate the detectors used in Gas chromatography.
h.	Write the various pumps used in HPLC.
i.	Write a note on stationary phases used in Gel chromatography.
j.	Write an example each for cation exchange resin and anion exchange resin.

SECTION B

2. Attempt any two parts of the following: 2 x 10 = 20

a.	Write the principle of Fluorescence with Jablonski diagram.
b.	Discuss the principle and instrumentation of IR spectroscopy.
c.	Describe the principle, procedure for development and application of paper chromatography.

SECTION C

3. Attempt any five parts of the following: 7 x 5 = 35

a.	Describe the Instrumentation of HPLC with special note on columns.
b.	Discuss the principle and applications of ion exchange chromatography.
c.	Explain the Gel electrophoresis technique with a neat sketch.
d.	Describe the various electronic transitions in UV spectroscopy.
e.	Write short notes on PMT and its working.
f.	Explain the light sources and detectors of IR region.
g.	Write the principle and instrumentation of atomic absorption spectroscopy with a neat sketch.