Printed Pages: 01 **Sub Code:BP-701T**

Paper Id: 231161 **Roll No.** | | | | | | | | | | |

B. PHARM.
(VII SEMESTER) THEORY EXAMINATION 2022-23
INSTRUMENTAL METHODS OF ANALYSIS

Time: 3 Hours ***Total Marks: 75***

Note: Attempt all Sections.

SECTION A

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

(a) Give principle of UV spectroscopy.

(b) Describe quenching with examples.

(c) Explain principle of Flame Photometry.

(d) What are various methods for preparation of TLC plates?

(e) Give significance of Fermi Resonance.

(f) Define Chromophores with examples.

(g) Give names of detectors used in HPLC.

(h) Describe principle of Affinity Chromatography.

(i) Explain applications of Nephelometry.

(j) Discuss factors affecting Vibrational frequency in IR spectroscopy.

SECTION B

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

(a) Discuss theory involved in IR Spectroscopy. Explain instrumentation of IR spectrophotometer with applications.

(b) Describe theory, principle, instrumentation and applications of Gas Chromatography.

(c) Differentiate between Atomic absorption and atomic emission. Describe various interferences involved in Atomic Absorption Spectroscopy.

SECTION C

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

(a) Give theory of Gel Electrophoresis. Explainfactors affecting electrophoretic mobility.

(b) What is Finger Print region? Explainfundamental modes of vibrations in poly atomic molecules.

(c) Explain applications of Spectrofluorometry.

(d) Describe mechanism of ion exchange process in Ion Exchange Chromatography.

(e) Explain Isocratic and Gradient Elution in HPLC.

(f) Discuss significance of derivatisation in Gas Chromatography.

(g) Describe spectral shifts and solvent effect on absorption spectra in UV Spectroscopy.

QP23DP1_290 | 09-01-2023 13:33:21 | 117.55.242.132

QP23DP1_290 | 09-01-2023 13:33:21 | 117.55.242.132