GALGOTIAS UNIVERSITY

ADMISSION NUMBER												

School of Medical and Allied Sciences

Bachelor of Pharmacy
Semester End Examination - May 2024

Duration : 180 Minutes
Max Marks : 75

Sem VIII - BPET8011 - Advanced Instrumentation Techniques

General Instructions
Answer to the specific question asked
Draw neat, labelled diagrams wherever necessary
Approved data hand books are allowed subject to verification by the Invigilator

1)	Name the principle involved in liquid-liquid extraction.	K1	(2)
2)	Show the difference between X-Ray Crystallography and Thermal Mrethods of Analysis.	K2	(2)
3)	Define principle behind solid-phase extraction.	K1	(2)
4)	Explain the disadvantages of UV-Visible Spectrosco[py.	K2	(2)
5)	Define principle behind Liquid-phase extraction.	K1	(2)
6)	Apply the knowledge on difference between do LC-MS/MS and HPLC.	K2	(2)
7)	What is the main purpose of Mass Spectrometry (MS)?	K1	(2)
8)	Apply the knowledge on X-Ray crystallography.	K2	(2)
9)	List the factors affecting chemical shift.	K1	(2)
10)	Explain X-ray Crystallography determine the structure of crystalline materials?	K2	(2)
11)	Identify Mass Spectrometry (MS) in detain with it's purposes?	K3	(5)
	OR		
	Identify fragmentation and how is it relevant in mass spectrometry?	K3	(5)
12)	Compare LC-MS/MS and GC-MS/MS with example.	K4	(5)
13)	Identify RIA in detail.	K3	(5)
14)	Compares the roles and responsibilities of LC-MS & GC-MS	K4	(5)
15)	Identify the advantages of RIA.	K3	(5)

16)	Analyze advantages of Differential Thermal Analysis (DTA)	K4	(5)
	OR		
	Evaluate different ionization techniques of mass spectrometry.	K4	(5)
17)	List out the major pharmaceutical applications of LC-MS/MS	K4	(5)
18)	Compile the impact of variation in environmental conditions on calibration and validation processes.	K6	(10)
19)	Evaluate Radio immune assay in detail.	K5	(10)
	OR		
	Evaluate the calibration of a UV-Visible spectrophotometer?	K5	(10)