GALGOTIAS UNIVERSITY

ADMISSION NUMBER												

School of Medical and Allied Sciences

Bachelor of Pharmacy
Mid Term Examination - Mar 2024

Duration : 90 Minutes
Max Marks : 30

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)	What is the primary principle ofd Nuclear Magnetic Resonance (NMR) spectroscopy?	K1	(2)
2)	Explain Chemical shift.	K2	(2)
3)	Explain How does X-ray Crystallography determine the structure of crystalline materials?	K2	(2)
4)	Define H-NMR spectra.	K1	(2)
5)	Explain difference between Thermogravimetric Analysis (TGA) and Differential Scanning Calorimetry (DSC).	K2	(2)
6)	Identift the factors that contribute to variations in chemical shift values in NMR spectroscopy.	K3	(5)
7)	Examine Differential Scanning Calorimetry (DSC) in detail.	K4	(5)
	OR		
	Classify Calibration and Validation according to ICH guidelines.	K4	(5)
8)	Determine an interpretation of a molecule CH3-CH3 by using H-NMR and Mass Spectoscopy.	K5	(10)
	OR		
	Evaluate the Thermal Gravimetry (TG) and Differential Scanning Calorimetry (DSC) Analysis detail.	K5	(10)