GALGOTIAS UNIVERSITY

ADMISSION NUMBER												

School of Basic Sciences

Bachelor of Science Honours in Chemistry
Mid Term Examination - May 2024

Duration : 90 Minutes
Max Marks : 50

Sem IV - C1UB405T - Basics of Nanoscience and Nanotechnology

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)	Explain why does band gap increase with decrease in size?	K2	(2)
2)	What is quantum confinement? Explain it with the help of suitable figure.	K1	(3)
3)	Explain various applications of nanotechnology.	K2	(4)
4)	Explain the role of nanomedicine in drug delivery.	K2	(6)
5)	Illustrate the process of Dip-pen nanolithography with suitable diagram.	K3	(6)
6)	Illustrate the term nucleation. Briefly explain the major steps involved during the growth mechanism of nanomaterials.	K3	(9)
7)	Analyze how does nanomaterials would be helpful as catalysts and key components of hydrogen storage systems.	K4	(8)
8)	Analyze and describe the various steps involved in sol-gel synthesis.	K4	(12)
	OR		
	Analyze the various steps involved in Chemical vapor deposition method with suitable diagram.	K4	(12)