GALGOTIAS UNIVERSITY

ADMISSION NUMBER

School of Biomedical Science

Bachelor of Science in Medical Biotechnology
Semester End Examination - Jun 2024

Duration : 180 Minutes
Max Marks : 100

Sem IV - Q1UG407C - Bioinstrumentation

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 the difference between magnification and resolution.	K1(2)
2)	Compare the function of mobile and stationary phase used in chromatography.	K2(4)
3)	Explain how charge and mass of a molecule is important in mass spectroscopy.	K2(6)
4)	Explain the basic difference in instrumentation, working and applications of bright and dark-field microscope.	K3(9)
5)	Explain the working principle of RP-HPLC along with its advantages over normal HPLC.	K3(9)
6)	Elaborate the applications, advantages and drawbacks of 2D-electrophoresis.	K5(10)
7)	Describe Ultracentrifuge and its various types along with their applications.	K4(12)
8)	Elaborate various types of mass spectrometry along with their principle and instrumentation.	K5(15)
9)	Explain in detail the principle, working and applications of ion-exchange chromatography.	K5(15)
10)	Elaborate the working principle and instrumentation of SEM and TEM.	K6(18)