GALGOTIAS UNIVERSITY

ADMISSION NUMBER

School of Biological and Life sciences

Master of Science in Microbiology
Semester End Examination - Aug 2024

Duration : 180 Minutes
Max Marks : 100

Sem III - MSDB6002 - Medical and Pharmaceutical Microbiology

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)	Relate the microbial virulence with respect to their pathogenecity.	K1(2)
2)	Illustrate the significance of compliance with government regulations, such as Good Manufacturing Practices (GMP) and Good Clinical Practices (GCP), in ensuring the safety, efficacy, and quality of pharmaceutical products.	K2(4)
3)	Outline the key characteristics of diseases caused by viruses, including their genetic material, replication process, and examples of associated diseases.	K2(6)
4)	Identify the risk factors that can predispose individuals to develop mycotic infections, such as immunosuppression or certain medical conditions.	K3(9)
5)	How can microbial enzymes be used to identify potential drug targets in the field of pharmaceutical research?	K3(9)
6)	Determine the mechanisms of action of antifungal agents and evaluate their effectiveness in treating fungal infections, considering factors such as spectrum of activity and side effects.	K5(10)
7)	Examine the key differences between Good Manufacturing Practices (GMP) and Good Laboratory Practices (GLP) in the pharmaceutical industry, and explain how each contributes to ensuring product quality and safety.	K4(12)
8)	Interpret the concept of acquired immunity in the context of microbial diseases, and evaluate its importance in protecting against future infections.	K5(15)
9)	Interpret the mechanisms of action of antibiotics and synthetic antimicrobial agents, analyzing how they target specific components or processes in microbial cells.	K5(15)
10)	Elaborate on the use of next-generation sequencing (NGS) in microbial diagnosis, discussing its potential for identifying pathogens and detecting antimicrobial resistance.	K6(18)