School of Biological and Life sciences

Department of Biological and Life Sciences
Mid Term Examination

Exam Date: 27 Sep 2023
Time : 90 Minutes
Marks : 50

Sem III - MSMB6004 - Algal and Fungal Microbiology

Your answer should be specific to the question asked
Draw neat labeled diagrams wherever necessary

1)	Explain the key characteristics used to differentiate algae from other groups of organisms in the plant kingdom.	K2 (2)
2)	Show the geographic distribution of algae species commonly found in freshwater ecosystems.	K1 (3)
3)	Illustrate the differences in cellular organization between unicellular, colonial, and multicellular algae, with examples for each category.	K2 (4)
4)	Outline the significance of algae as primary producers in aquatic ecosystems and their role in nutrient cycling.	K2 (6)
5)	Construct a flowchart depicting the process of sexual reproduction in a unicellular alga, such as Chlamydomonas, and its significance in genetic diversity.	K3 (6)
6)	Identify the environmental conditions that promote the growth of harmful algal species and explain their potential consequences on human health and marine life.	K3 (9)
7)	Classify Bacillariophyta species according to their preferred habitat, and analyze the factors that influence their distribution in freshwater and marine ecosystems.	K4 (8)
8)	Examine the role of Rhodophyta algae in nutrient cycling and carbon sequestration, and their potential impact on global climate regulation.	K4 (12)

OR

	Examine the economic importance of Rhodophyta algae, including their applications in food, pharmaceuticals, and industrial products.	K4 (12)