


Name:			
Enrolment No:			
UNIVERSITY OF PETROLEUM AND ENERGY STUDIES End Semester Examination, May 2022			
Course: M.Sc. Microbiology Program: Eukaryotic microbes Course Code: HSMB7012		Semester: IV Time : 03 hrs. Max. Marks: 100	
Instructions:			
Q.No	Section A Short answer questions/ MCQ/T&F	(20Q x1.5M= 30 Marks)	COs
Q	Statement of question		
1.	Which of the following class of protozoa does not generally contain contractile vacuole? (a) Sporozoa (b) Rhizopoda (c) Flagellata (d) Ciliata	1.5	CO1
2.	Plasmodium will be vanished if all the ponds and puddles are destroyed. (a) True (b) False	1.5	CO1
3.	Which of the following is not a characteristic feature of protozoans (a) binary fission (b) contractile vacuole (c) cell membrane as an outer body covering (d) pseudopodia	1.5	
4.	Malarial parasite belong to.....?	1.5	CO1
5.	Protista is the group of unicellular eukaryotes (a) True (b) False	1.5	CO1
6.	Which of the following is not true for protozoa a. Lack cell wall b. Produce no spore bearing structures c. Comprise the population known as phytoplankton d. Form active feeding forms called trophozoites	1.5	CO1
7.	Holozoic nutrition is the characteristic of	1.5	CO1

	<ul style="list-style-type: none"> a. Cyanobacteria b. Protozoa c. Algae d. Fungi 		
8.	<p>Trypanosoma belongs to which of the following group?</p> <ul style="list-style-type: none"> (a) mastigophora (b) sarcodina (c) sporozoa (d) ciliate 	1.5	CO1
9.	<p>Which of the following protozoan causes African sleeping sickness</p> <ul style="list-style-type: none"> (a) <i>Plasmodium vivax</i> (b) <i>Entamoeba gingivalis</i> (c) <i>Trypanosoma lewsi</i> (d) <i>Trypanosoma gambiense</i> 	1.5	CO1
10.	<p>Which one of the following is a colonial algae?</p> <ul style="list-style-type: none"> (a) Ulothrix (b) Spirogyra (c) Volvox (d) Chlorella 	1.5	CO1
11.	<p>Member of protozoa may be motile by all of the following except</p> <ul style="list-style-type: none"> a) Flagella b) Gliding by slime secretion c) Cilia. d) Pseudopodia 	1.5	CO1
12.	<p>Protozoa are generally not</p> <ul style="list-style-type: none"> a) multicellular b) microscopic c) lacking cell wall d) eukaryotic 	1.5	CO2
13.	<p>Heterocyst are found in</p> <ul style="list-style-type: none"> a) Nostoc b) Cystopus c) Ulothrix d) Aspergillus 	1.5	CO2

14.	Find the incorrect statement (a) Agar-agar is produced from Gracilaria (b) Chlorella is used in space food (c) Mannitol is a food reserve of Rhodophyceae (d) Algin is produced by algae	1.5	CO2
15.	Which of the following shows zygotic meiosis? (a) Chlamydomonas (b) Marchantia (c) Funaria (d) Fucus	1.5	CO2
16.	What is the storage product of most algae? (a) cellulose (b) glycogen (c) starch and oil (d) Fat	1.5	CO2
17.	This fungi division includes 'Club fungi' (a) Zygomycota (b) Deuteromycota (c) Basidiomycota (d) Ascomycota	1.5	CO2
18.	Find the incorrect statement (a) Agar-agar is produced from Gracilaria (b) Chlorella is used in space food (c) Mannitol is a food reserve of Rhodophyceae (d) Algin is produced by algae	1.5	CO3
19.	What is the name of the special hyphal tips through which parasitic fungi absorb nutrients directly from the cytoplasm of the living host? (a) Haustoria (b) Mildew (c) Constricting ring (d) All of the above	1.5	CO4
20.	The fungi which derive their food directly from dead organic matter are known as (a) Predators	1.5	CO3

	(b) Decomposers (c) Mutualists (d) Parasitic fungi		
	Section B	(4Qx5M=20 Marks)	CO
Q			
1.	Write a short note on application of fungi.	5	CO3
2.	What is the importance of protozoa and algae in ecosystem?	5	CO2
3.	Briefly discuss the protective structures a general protozoa.	5	CO1
4.	How protozoa reproduce asexually?	5	CO1
	Section C	(2Qx15M=30 Marks)	
Q	Statement of question (Case studies)		CO
1.	A foreigner admitted to hospital with symptoms like mild diarrhea with bloody stools, fever, and abdominal cramping. He was returning from Thailand and ate under cooked meat and some vegetable. Doctor suspect some protozoan infection. a) What type of protozoan infection it might be? b) Write the phylogenetic classification of that protozoa c) Describe the life-cycle of that protozoan. d) What precaution that the traveler should have taken to avoid such infection?	2+5+5+3=15	CO2
2.	Suppose you are working in a project where you have to use wastewater for production of microalgae. You tested the wastewater and found that it contains enough amount nutrients to support microalgal growth. a) Write the steps of microalgal cultivation b) Can you use those cultivated microalgal biomass for any application? c) Write the effect of algal bloom on aquatic ecosystem.	8+4+2+3=15	CO4
	Section D	(2Qx10M=20 Marks)	
Q	Statement of question		CO
1.	a) What is lichen? b) Write the impact of lichen destruction in environment. c) What is coral? d) Describe structural components of Euglena	2+3+2+3=10	CO2

2.	a) Compare plant and fungi. b) Write the name of five phyla of fungi with example.	5+5=10	CO4
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