

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2024
(Second Semester)

Branch – ZOOLOGY

MICROBIOLOGY

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Which microorganism(s) among the following perform photosynthesis by utilizing light? a) Cyanobacteria, Fungi and Viruses b) Viruses c) Cyanobacteria d) Fungi	K1	CO1
	2	The respiratory chain of bacteria is associated with the _____ a) cytoplasmic membrane b) cell wall c) cytoplasm d) mitochondrial membrane	K2	CO1
2	3	Which of the following is the characteristic of good quality milk? a) CFU<1000000 per ml b) CFU>1000000 per ml c) CFU=1000000 per ml d) CFU>1500000 per ml	K1	CO2
	4	Coliform bacteria leads to _____ a) Off-flavor and smell b) Gas formation c) Off-flavor, smell and gas formation d) Fruity taste	K2	CO2
3	5	Causative agent of leprosy a) <i>Mycobacterium leprae</i> b) <i>Salmonella typhi</i> c) <i>Mycobacterium tuberculosis</i> d) <i>Corynebacterium diphtheria</i>	K1	CO3
	6	This Hepatitis virus is not an RNA virus a) Hepatitis G virus b) Hepatitis E virus c) Hepatitis B virus d) Hepatitis A virus	K2	CO3
4	7	How are microorganisms added in bioreactors? a) Directly mixed with medium b) Directly charged with the medium c) Added on the surface of the nutrient medium d) By mixing them with pebbles	K1	CO4
	8	The restriction of enzyme mobility in a fixed space is known as _____ a) enzyme immobilization b) enzyme inhibition c) enzyme kinetics d) biosensor	K2	CO4

Cont...

5	9	Which of the following is not a biopesticide? a) Nucleopolyhedrovirus b) Xanthomonas campestris c) Bacillus thuringiensis d) Trichoderma harzianum	K1	CO5
	10	Industrial nitrogen fixation is carried out by _____. a) Friedel Crafts reaction b) Helmonts process c) Haber process d) None of the above	K2	CO5

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Summarize the significant microbiology institute in India and their role in microbial industry.	K3	CO1
		(OR)		
	11.b.	Explain the different types of sterilization techniques.		
2	12.a.	Enumerate the microbial contamination of spoilage of poultry.	K4	CO2
		(OR)		
	12.b.	List out the microbial contamination of spoilage of sea food with examples.		
3	13.a.	Discuss the pathogenesis, diagnosis and control measure of Cholera.	K5	CO3
		(OR)		
	13.b.	Pathogenicity and characteristic features of Leprosy - Explain.		
4	14.a.	Critically comment on immobilization of enzymes.	K5	CO4
		(OR)		
	14.b.	Explain the industrial production of Ethanol.		
5	15.a.	Critically Comment on water pollution management with help of microbes.	K6	CO5
		(OR)		
	15.b.	Explain about the Biofertilizers with suitable examples.		

SECTION - C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Explain the morphology of microbial cell with suitable diagram.	K4	CO1
2	17	Discuss the major sources of contamination of milk.	K4	CO2
3	18	Discuss about the pathogenesis, diagnosis and control measures of Rabies.	K5	CO3
4	19	Explain the production of antibiotics with suitable examples.	K4	CO4
5	20	Elucidate on the role of Ti plasmid and Nif gene in agriculture.	K6	CO5