

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 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	Who is known as the father of Microbiology? a) Edwin John Butler b) Ferdinand Cohn c) Robert Koch d) Antoni van Leeuwenhoek	K1	CO1
	2	What is the approximate size of the bacterial cell? a) 1mm in diameter b) 0.5 to 1.0 micrometer in diameter c) 2mm in diameter d) 2 micrometer in diameter	K2	CO1
2	3	Which of the following is not a source of infection in milk? a) Milker and cow b) Litter c) Ambient air d) Heat	K1	CO2
	4	Lactic acid bacteria ferment which of the following forming lactic acid? a) Sucrose b) Glucose c) Lactose d) Fructose	K2	CO2
3	5	Generation time of leprosy. a) 12-13 hours b) 12-23 days c) 5-10 days d) 1-5 days	K1	CO3
	6	This nucleic acid is found in hepatitis B virus. a) dsRNA b) ssDNA c) ssRNA d) dsDNA	K2	CO3
4	7	Which of the following is the container where fermentation is carried out? a) Sludge eliminator b) Bioreactor c) Activator d) Fermenter	K1	CO4
	8	What are the by-products of alcoholic fermentation? a) CO ₂ and Yeast b) CO ₂ and H ₂ O c) CO ₂ and ethanol d) H ₂ O and glucose	K2	CO4
5	9	This is a third generation pesticide. a) Pheromones b) Pathogens c) Carbamates and organophosphates d) Insect repellants	K1	CO5
	10	What is the first stable product of nitrogen fixation in the root nodules of leguminous plants? a) Glutamate b) NO ₃ ⁻ c) Ammonia d) NO ₂ ⁻	K2	CO5

Cont...

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.	List out the scope of microbiology in India.	K3	CO1
		(OR)		
	11.b.	Comment on bacterial chromosome.		
2	12.a.	Analyze the chemical methods of microbial growth control.	K5	CO2
		(OR)		
	12.b.	Classify the types of oriental food.		
3	13.a.	Analyze the laboratory diagnosis of Gonorrhoea.	K4	CO3
		(OR)		
	13.b.	Discuss the pathogenesis, diagnosis and control measures of Typhoid fever.		
4	14.a.	Explain the production of lactic acid.	K4	CO4
		(OR)		
	14.b.	Discuss the production of L-glutamic acid.		
5	15.a.	Explain the role of Ti plasmid in agriculture.	K5	CO5
		(OR)		
	15.b.	Enlist the use of enzymes in waste water treatment.		

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	Describe the metabolic process in growth of bacteria.	K4	CO1
2	17	Discuss the identification of bacteria with special reference to IMVic.	K5	CO2
3	18	Discuss about the pathogenesis, diagnosis and control measures of Hepatitis B.	K5	CO3
4	19	Describe the production and application of microbial enzymes.	K4	CO4
5	20	Elucidate on the microbial degradation of Xenobiotics.	K6	CO5

Z-Z-Z

END