

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2023
(First Semester)

Branch – APPLIED MICROBIOLOGY

INTRODUCTORY MICROBIOLOGY & SYSTEMATICS

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 scientists' first disproved spontaneous generation by showing that maggots only appear on decaying meat that has been exposed to flies? a) Francesco Redi b) Joseph Lister c) Louis Pasteur d) Robert Hooke	K1	CO1
	2	Name the sterilization method that is most frequently used in hospitals and clinical laboratories for the heat-labile liquid substances or antibiotics. a) Dry heat b) Radiation c) Filtration d) Formaldehyde	K2	CO1
2	3	The National Collection of Type Cultures is situated in ---- -----. a) France b) England c) Germany d) Japan	K1	CO2
	4	% Similarity (%S) of each strain to every other strain is calculated by which method? a) Intuitive Method b) Numerical Taxonomy c) Genetic Relatedness d) DNA homology	K2	CO2
3	5	According to Bergey's Manual of Systematic Bacteriology, prokaryotes that lack a cell wall belong to the group? a) Gracilicutes b) Firmicutes c) Tenericutes d) Mendosicutes	K1	CO3
	6	Which of the following is the example of Gram-negative bacteria? a) <i>Lactobacillus</i> b) <i>Eschericia coli</i> c) <i>Staphylococcus aureus</i> d) <i>Bacillus subtilis</i>	K2	CO3
4	7	Which of the following comprises large cone-shaped protozoa? a) Didinium b) Vorticella c) Stentor d) Colpoda	K1	CO4
	8	The xanthophyte walls are typically of -----. a) chitin b) cellulose c) cellulose and pectin d) starch	K2	CO4
5	9	For the cultivation of viruses the fertile chicken eggs should be incubated for how many day(s)? a) 1 b) 2-4 c) 5-12 d) 2-7	K1	CO5
	10	The viral envelope is made up of _____. a) Proteins b) Glycoproteins c) Lipids and Proteins d) All of the above	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.	Interpret your views on Germ theory of disease.	K2	CO1
	(OR)			
	11.b.	Give outline note on different types of Physical sterilization method.		
2	12.a.	Identify the role various stains involved in Differential staining.	K3	CO2
	(OR)			
	12.b.	Plan the importance of RFLP and mention its principle in detail.		
3	13.a.	Analyze briefly about the Significance of molecular systematics.	K4	CO3
	(OR)			
	13.b.	Infer about characteristic features of Archaea.		
4	14.a.	Mention the criteria for classification of Ascomycetes.	K5	CO4
	(OR)			
	14.b.	Explain in detail note on life cycle of Rhodophytes.		
5	15.a.	Elaborate the properties of Viruses.	K6	CO5
	(OR)			
	15.b.	Predict the importance of Cultivation of Viruses in Egg embryo .		

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	Construct your views on contributions of Louis Pasteur.	K4	CO1
2	17	Analyse the significance of microbial taxonomy and add a note on any one taxonomy in detail.	K5	CO2
3	18	Construct a brief account on characteristic features of Planctomycetes.	K6	CO3
4	19	Conclude the role of Algae in sustainable environment.	K5	CO4
5	20	Discuss in detail account on classification of fungal virus.	K6	CO5

Z-Z-Z

END