

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2024
(First Semester)

Branch - **MICROBIOLOGY**

FUNDAMENTALS OF 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	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	K2	CO1
2	3	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	K1	CO2
	4	Bacteria having clusters of flagella at both poles of cells are known as? a) Amphitrichous b) Monotrichous c) Peritrichous d) Lophotrichous	K2	CO2
3	5	All algae have a) Chlorophyll a and carotene b) Chlorophyll b and carotene c) Chlorophyll a and Chlorophyll b d) Phycobilins and carotene	K1	CO3
	6	The inner cell wall in algae is made up of _____ a) Pectin b) Cellulose c) Chitin d) Lipids	K2	CO3
4	7	This fungi division includes 'Club fungi' a) Zygomycota b) Deuteromycota c) Basidiomycota d) Ascomycota	K1	CO4
	8	The Fungal cell walls are typically made up of _____ a) chitin b) cellulose c) pectin d) starch	K2	CO4
5	9	Which of the following comprises large cone-shaped protozoa? a) Didinium b) Vorticella c) Stentor d) Colpoda	K1	CO5
	10	Conjugation as a mode of reproduction is present in a) ciliata b) flagellata c) Sarcodina d) sporozoa	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.	Explain in brief about the scope of Microbiology.	K2	CO1
	(OR)			
	11.b.	Give outline note on Contributions of Louis Pasteur.	K2	CO1
2	12.a.	Apply your critical knowledge about inclusion bodies.	K3	CO2
	(OR)			
	12.b.	Identify various stains involved in Differential staining	K3	CO2
3	13.a.	Analyze briefly about different mode of algal nutrition.	K3	CO3
	(OR)			
	13.b.	Select some commercial products derived from algae and mention their applications.	K3	CO3
4	14.a.	Conclude your views on characters of Ascomycetes.	K4	CO4
	(OR)			
	14.b.	Categorize various stages of fungal reproduction with suitable diagrams.	K4	CO4
5	15.a.	Examine elaborately about morphology of Protozoa.	K4	CO5
	(OR)			
	15.b.	List various stages involved in Binary fission of protozoa.	K4	CO5

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	Classify different experiments carried out to prove and disprove theory of Spontaneous generation.	K4	CO1
2	17	Infer your views on Ultra structure of Flagella.	K4	CO2
3	18	Construct a brief account on characteristic features of Algae.	K4	CO3
4	19	Analyze your views on metabolism and nutrition of Fungi.	K4	CO4
5	20	Categorize different nutritive mode of Protozoa.	K4	CO5