

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION MAY 2025
(Second Semester)

Branch - **BIOCHEMISTRY**

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	_____ is used for sterilizing inoculating loops. (a) Flaming (b) Incineration (c) Hot air oven (d) Steam	K1	CO1
	2	Which one of the following is true (a) Agar has nutrient properties (b) Nutrient broth is basal medium (c) Solid medium is called enrichment media (d) Chocolate medium is selective medium	K2	CO2
2	3	Which of these is not a basic shape of bacteria? (a) Vibrio (b) Spirillum (c) Triangular (d) Coccus	K1	CO2
	4	Yeast is unlike bacteria in being _____. (a) Unicellular (b) Multicellular (c) Prokaryotic (d) Eukaryotic	K2	CO2
3	5	What is the chemical nature of endotoxins? (a) protein (b) polysaccharide (c) lipopolysaccharide (d) lipid	K1	CO3
	6	_____ of the following is not a waterborne disease? (a) Typhoid (b) Cholera (c) Diarrhoea (d) Chicken pox	K2	CO3
4	7	An organism that lost its ability to synthesize its own histidine is _____. (a) auxotroph (b) donor cell (c) prototroph (d) revertant	K1	CO3
	8	Viruses that attack bacteria are called _____. (a) Virophage (b) Lysophage (c) Bacteriophage (d) virions	K2	CO3
5	9	_____ is not a type of soil microorganism. (a) Bacteria (b) Fungi (c) Earthworms (d) Protozoa	K1	CO4
	10	What is the full form of BOD? (a) Biochemical oxygen demand (b) Bionatal oxygen demand (c) Biological disease (d) Biological oxygen deficiency	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.	Describe the principle and working of light microscope.	K1	CO1
		(OR)		
	11.b.	List out and detail the physical methods of sterilization.		
2	12.a.	Write a brief note on cell wall structure of bacteria.	K1	CO2
		(OR)		
	12.b.	State the economic importance of Algae.		
3	13.a.	Interpret about Host – Parasite interaction.	K2	CO3
		(OR)		
	13.b.	Discuss on the aetiology and symptoms of Bacillary dysentery.		
4	14.a.	Demonstrate the steps of serial dilution.	K2	CO3
		(OR)		
	14.b.	Explain Plaque assay.		
5	15.a.	Enumerate on Rhizobia and Mycorrhizae	K1	CO4
		(OR)		
	15.b.	Outline the role of microorganisms in Sulfur cycle.		

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	Detail the procedure of Gram staining.	K2	CO2
2	17	Summarize the life cycle of yeast.	K2	CO2
3	18	Outline the role of Normal human microflora in human body.	K1	CO3
4	19	Describe the structure and classification of Viruses.	K1	CO3
5	20	Elaborate about Penicillin production.	K2	CO5