

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

PG DEGREE EXAMINATION DECEMBER 2025
(Third Semester)

TRANS DISCIPLINARY COURSE
(Common to PG Programmes)

MICROBIAL WORLD

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

$(10 \times 1 = 10)$

Module No.	Question No.	Question	K Level	CO
1	1	The viral genome is packaged into a structure made of _____ a) protein b) carbohydrate c) fats d) lipids	K1	CO1
	2	In Gram-staining, iodine is used as a _____ a) fixative b) mordant c) solubilizer d) stain	K2	CO1
2	3	Which of the following is produced by fermentation of milk? a) Yogurt b) Sauerkraut c) Tempeh d) Kombucha	K1	CO2
	4	How is penicillin stored? a) Filtration b) Crystallization c) Distillation d) Sublimation	K2	CO2
3	5	Which type of treatment is the coarse screen? a) Preliminary treatment b) Primary treatment c) Secondary treatment d) Tertiary treatment	K1	CO3
	6	Which of the following is not a biofertilizer? a) Mycorrhiza b) Rhizobium c) Agrobacterium d) Nostoc	K2	CO3
4	7	Which body part contains the largest microbial population? a) stomach b) small intestine c) large intestine d) mouth	K1	CO4
	8	Which of the following microorganism produces colicins in the intestine? a) <i>E. coli</i> b) <i>B. subtilis</i> c) <i>C. botulinum</i> d) <i>S. salivarius</i>	K2	CO4
5	9	An Algae that are commonly used for the production of Single cell protein is— a) Arthrospira b) Spirogyra c) Nostoc d) Anabaena	K1	CO5
	10	Bioremediation refers— a) usage of microbes to create new organisms b) usage of anaerobic bacteria to create new antibiotics c) usage of microbes to destroy environmental pollutants d) usage of aerobic bacteria to create new vaccines	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.	Analyze the general characters of fungi. (OR)	K4	CO1
	11.b.	Infer the working principle and applications of bright field microscope.		
2	12.a.	Conclude the different stages of yogurt preparation. (OR)	K4	CO2
	12.b.	Inspect the biochemistry of Wine making.		
3	13.a.	Estimate the amount of microbes in air by suitable assessment method. (OR)	K5	CO3
	13.b.	Explain the importance of municipal solid waste management.		
4	14.a.	Interpret your views on significance of defense mechanism of human body. (OR)	K5	CO4
	14.b.	Choose possible microbes involved in infection of eyes.		
5	15.a.	Discuss in detailed note on Effective microbial consortia. (OR)	K6	CO5
	15.b.	Elaborate the biological significance of Biodegradation mention it 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	Categorize the role different stains involved in gram staining.	K4	CO1
2	17	Classify the various microbial spoilage of foods.	K4	CO2
3	18	Determine the role of microbes in soil fertility with suitable explanation.	K5	CO3
4	19	Deduct the beneficial aspect of normal flora of human body.	K5	CO4
5	20	Compile in brief account on economic importance of fungi and add a note on suitable examples.	K6	CO5