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22NDU517N

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMEBR 2025
(Fifth Semester)

Branch - **NUTRITION, FOOD SERVICE MANAGEMENT AND DIETETICS**

FOOD 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	A _____ is the protein coat that surrounds and protects the genetic material (DNA or RNA) of a virus. A) Capsid B) Cell wall C) Envelope D) Nucleoid	K1	CO1
	2	Organisms that obtain nutrients from dead and decaying matter are called _____ A) Parasites B) Saprophytes C) Autotrophs D) Symbionts	K2	CO1
2	3	Yeasts reproduce mainly by _____ A) Binary fission B) Fragmentation C) Budding D) Spore germination	K1	CO2
	4	Algae are classified mainly on the basis of A) Cell wall composition and pigment type B) Shape of cells C) Presence of mitochondria D) Nutrition type	K1	CO2
3	5	The fungus known as bread mold is _____ A) *Mucor* B) *Penicillium* C) *Rhizopus* D) Aspergillus	K2	CO3
	6	Psychrotrophic bacteria can grow _____ A) At very high temperatures B) At refrigeration temperatures C) Only at room temperature D) Only in acidic foods	K1	CO3
4	7	Food intoxication occurs when: A) Growth of microorganism in GI track B) Toxin is preformed in food and ingested C) Ingestion of microorganism D) All the above	K1	CO4
	8	The toxin produced by *Staphylococcus aureus* is called _____ A) Endotoxin B) Neurotoxin C) Enterotoxin D) Exoenzyme	K1	CO4
5	9	BOD stands for: A) Biological Organic Density B) Biological Oxygen Demand C) Biochemical Oxygen Depletion D) Bacterial Oxygen Density	K1	CO5
	10	The presence of ***E. coli*** in water indicates _____ A) Chemical contamination B) Fecal contamination C) High oxygen level D) Sterility of water	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.	Classify microorganism.	K2	CO1
		(OR)		
	11.b.	Illustrate the structure of Bacteriophage and explain its multiplication.		
2	12.a.	Outline the economic importance of algae.	K2	CO2
		(OR)		
	12.b.	Draw the structure of yeast cell and explain its morphology.		
3	13.a.	Analyze the causes of spoilage and contamination of food.	K4	CO3
		(OR)		
	13.b.	Examine the microbes involved in spoilage and contamination of milk.		
4	14.a.	Explain the types of food borne diseases and microbial toxins.	K5	CO4
		(OR)		
	14.b.	Discuss on infective hepatitis & polio.		
5	15.a.	Explain the mode of action and application of chemical agents.	K5	CO5
		(OR)		
	15.b.	Choose Physical agents to control micro organisms in food industry.		

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	Appraise the following topics 1. Food a s a substrate for microbial growth 2. Growth curve of bacteria.	K4	CO1
2	17	Explain morphology, reproduction and nutrition of mold.	K5	CO2
3	18	Examine the factors affecting the growth of microbes and chemical changes caused by microbes.	K4	CO3
4	19	Discuss on *Clostridium and Salmonella* bacterial infections with reference to incubation period, symptoms and prevention.	K6	CO4
5.	20	Compile on bacteriological examination of water for E Coli.	K6	CO5

Z-Z-Z END