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M.SC. IN NUTRITION& FOOD SCIENCE

EXAMINATION : APRIL/MAY - 2024 SECOND SEMESTER

Sub.: Microbiology & Research Methodology (M.Sc. CB-213)

Date: 29/04/2024		/04/2024	Total marks: 60	Time: 10.00 am to 12.	Time: 10.00 am to 12.30 pm		
Instr	1	ions: 1) All questions are compulsor 2) Figures to the right indicate					
	SECTION A 1. Select the connect elternative (5)						
Q. 1	Select the correct alternative.				(5)		
	1)	1) Which type of bacteria is commonly responsible for causing food borne illness from improperly canned foods?					
		a) Salmonella	b) Escherichia	a coli			
		c) Clostridium botulinum	d) Listeria mo	onocytogenes			
	2) Which of the following food preservation methods involves the use of high p to inactivate microorganisms?						
		a) Pasteurization	b) Canning				
		c) Freezing	d) High-press	ure processing			
	3)	Yeast is used in the production	on of				
		a) Tetracycline	b) Ethanol				
		c) Butanol	d) Citric Acid				
	4) type of bacteria is responsible for the cause of Cholera.						
		a) Rod Shape	b) Spiral Shap	e			
		c) Coma Shape	d) Spherical S	Shape			
	5)	Peptidoglycan layer is compo	osed of				
		a) Lipids	b) Polysaccha	rides			
		c) Amino acids	d) Both a & b				
Q. 2	Answer the following questions. (Any Two)						
	1)	Bacterial growth curve					
	2)	Significant role of fungi in fo	oods				
	3)	Classification of Microorgan	isms				
Q. 3	Answer the following questions. (Any One)				(15)		
	1) What is food spoilage? Explain the role of microorganisms in food spoilage with suitable examples and discuss the signs of food spoilage.						
	2) Describe the factors influencing microbial growth in food. How do intrinsic and extrinsic factors affect microbial growth and food preservation.						

SECTION B

Q. 1	1. Theoretical research is also known as					
	a) Pure Research	b) Basic Research				
	c) Fundamental Research	d) All the above				
	2 was the prime scientist to use the term 'evidence based'.					
	a) William J. Cook	b) Robert J. T. Joy				
	c) David M. Eddy	d) Otis Brawley				
	3. The data collected about a numeric variable will always be					
	a) Qualitative data	b) Quantitative datad) Grouped data				
	c) Primary data					
	4.Non probability sampling are					
	a) Convenience sampling	b) Consecutive sampling				
	c) Clustered sampling	d) Both a and b				
	5 is that number which occurs most often in the data set.					
	a) Mean	b) Median				
	c) Mode	d) None of the above				
Q. 2	Answer the following questions. (Any One)					
	1) Define Research. Write about Research in Sanskrit and Research process in detail.					
	2) Define data. Write about presentation of data in detail.					
Q. 3	White a Short note (Any two)		(10)			
Q. 3	Write a Short note. (Any two) 1) Qualitative Research and Quantitative Research					
	Qualitative Research and Quantitative Research. 2) Ethics in Research.					
	2) Ethics in Research.					
	3) Grouped and Ungrouped data.					
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