

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION MO/2022)

CLASS: IMSC
BRANCH: FOOD TECH

SEMESTER : VII
SESSION : MO/ 2022

SUBJECT: FT403 ADVANCED FOOD CHEMISTRY AND MICROBIOLOGY
TIME: 03 HOURS FULL MARKS: 50

INSTRUCTIONS:

1. The question paper contains 5 questions each of 10 marks and total 50 marks.
2. Attempt all questions.
3. The missing data, if any, may be assumed suitably.
4. Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates

	FM	CO	BL
Q.1(a) Explain the term pathogenesis.	[2]	1	2
Q.1(b) Discuss the factors responsible for growth of microorganisms in food.	[3]	3	2
Q.1(c) Describe three biopreservative agents and their mode of action.	[5]	3	3
Q.2(a) Define Enterobacteriaceae family of bacteria.	[2]	2	2
Q.2(b) Suggest a rapid method for detection of food borne RNA virus.	[3]	3	4
Q.2(c) Discuss the following items related to <i>Listeria monocytogenes</i> a. Mode of transmission b. Risk group c. Symptoms of disease	[5]	1	2
Q.3(a) Evaluate the adverse effect of antibiotics use in agriculture.	[2]	2	5
Q.3(b) Justify, PCR is a gold standard method for food pathogen detection.	[3]	4	4
Q.3(c) Identify some advantage and limitation of PCR.	[5]	4	2
Q.4(a) Define isoelectric point	[2]	2	2
Q.4(b) Explain biuret test of protein	[3]	2	3
Q.4(c) Discuss complete protein and incomplete protein	[5]	3	3
Q.5(a) What is glycemic carbohydrate?	[2]	2	3
Q.5(b) How will you classify carbohydrates?	[3]	1	2
Q.5(c) What are the functional properties of carbohydrates in food?	[5]	2	3

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