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

CLASS: B.TECH   SEMESTER : VI
BRANCH: BIOTECH   SESSION : SP/2024

SUBJECT: BE315 FOOD SCIENCE AND TECHNOLOGY

TIME: 3 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. Before attempting the question paper, be sure that you have got the correct question paper.
5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.

			CO	BL
Q.1(a)	Differentiate between macronutrients and micronutrients, provide any two suitable examples for each and indicate their importance.	[5]	1	2
Q.1(b)	Enzyme plays a significant role in the food industry, particularly in the processing and production of various food products. Describe five use of lipase in food processing Industries.	[5]	3	3
Q.2(a)	Discuss the factors influencing microbial growth in food.	[5]	2	4
Q.2(b)	Explain the classification of foods based on spoilage mechanisms.	[5]	2	3
Q.3(a)	Compare traditional and modern food processing methods, citing their advantages and disadvantages.	[5]		5
Q.3(b)	Discuss the objectives and limitations of protein engineering in food technology.	[5]	3	3
Q.4(a)	Define proximate analysis of foods and discuss its significance in food quality assessment.	[5]	4	2
Q.4(b)	Explain the importance of pre-harvest factors in determining food quality.	[5]	4	3
Q.5(a)	Outline the steps involved in new product development in the food industry.	[5]	5	3
Q.5(b)	Evaluate the advantages and disadvantages of different materials used in cooking and food storage.	[5]	5	4

::::::26/04/2024::::::M