QP Code: R262B033 | Reg. No | | | | | | | | | | | AY 25

Gandhi Institute of Engineering and Technology University, Odisha, Gunupur
(GIET University)

M.Tech. (Second Semester - Regular) Examinations, May – 2026

24MBTPE12002–Food Process and Biotechnology

Time: 3 hrs | Maximum: 60 Marks

(The figures in the right hand margin indicate marks)

PART – A **(2 x 5 = 10 Marks)**

Q.1. Answer ***ALL*** questions	CO #	Blooms Level
a. Define sensory evaluation.	CO1	K1
b. Define food-borne infection.	CO2	K2
c. What is HACCP?	CO3	K2
d. Define chromatography.	CO2	K1
e. What is ultrafiltration?	CO4	K2

PART – B **(10 x 5 = 50 Marks)**

Answer ***ALL*** the questions	Marks	CO #	Blooms Level
2. a. Define flavour components and discuss their role in foods.	5	CO1	K1
b. Explain the sensory evaluation of foods and its different methods.	5	CO1	K2
(OR)			
c. What are anti-nutritional factors? Explain any four with examples.	5	CO1	K2
d. Describe the digestion, absorption, and transport of carbohydrates, proteins, and lipids.	5	CO1	K1
3.a. Explain different types of bioreactors and their applications.	5	CO2	K1
b. Describe the design and working of a stirred tank bioreactor.	5	CO2	K2
(OR)			
c. Discuss fermented beverages and their industrial importance.	5	CO2	K1
d. Define probiotics and prebiotics. Explain their health benefits.	5	CO2	K2
4.a. Explain industrial plant sanitation and hygiene in food industries.	5	CO3	K2
b. Define food safety and food quality. Discuss the quality attributes of foods.	5	CO3	K2
(OR)			
c. Explain GMP, GHP, GLP, GAP, and HACCP in food quality management.	5	CO3	K4
d. Discuss food adulteration and methods for its prevention.	5	CO3	K2
5.a. Discuss chromatography and its applications in food analysis.	5	CO4	K2
b. Explain electrophoresis and its applications in food biotechnology.	5	CO4	K2
(OR)			
c. Describe spectroscopic and microscopic techniques used in food quality analysis.	5	CO3	K1
d. Discuss immunoassays, isotopic techniques, nanotechnology, and thermal methods in food analysis.	5	CO3	K1
6.a. Explain organoleptic analysis and its importance in the sensory evaluation of foods.	5	CO4	K4
b. Differentiate between batch fermentation and continuous fermentation.	5	CO4	K1
(OR)			
c. Discuss the objectives and functions of quality control and quality assurance.	5	CO4	K1
d. Discuss the role of analytical techniques in detecting food adulteration.	5	CO3	K2

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