



B.TECH DEGREE EXAMINATIONS: NOV/DEC 2023

(Regulation 2018)

Seventh Semester

BIOTECHNOLOGY

U18BTE0003: Food Preservation Technology

COURSE OUTCOMES

- CO1:** Identify the causes of spoilage.
CO2: Categorize high temperature processing techniques.
CO3: Apply drying techniques for different foods.
CO4: Compare various low temperature processing techniques.
CO5: Examine various non-thermal methods of preservation.
CO6: Analyze various packaging techniques.

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 2 = 20 Marks)

(Answer not more than 40 words)

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|--|-----|-------------------|
| 1. Recall the spoilage of milk and milk products. | CO1 | [K ₂] |
| 2. List the intrinsic and extrinsic factors affecting microbial spoilage of foods. | CO1 | [K ₂] |
| 3. What is the main objective of blanching of foods. | CO2 | [K ₂] |
| 4. On drying, the foods tend to lose vitamins. Justify. | CO3 | [K ₄] |
| 5. Recall the principle of freeze dryer. | CO3 | [K ₂] |
| 6. What is sub atmospheric storage in food industry? | CO4 | [K ₂] |
| 7. What is the application of ohmic heating in food industry? | CO4 | [K ₃] |
| 8. Write about manothermosonication of foods. | CO5 | [K ₁] |
| 9. Outline the principles of HACCP. | CO6 | [K ₁] |
| 10. What must appear on the label of your packaged food? | CO6 | [K ₂] |

Answer any FIVE Questions:-

PART B (5 x 16 = 80 Marks)

(Answer not more than 400 words)

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|--|---|-----|-------------------|
| 11. a) Outline the bacterial and fungal spoilage of eggs. | 8 | CO1 | [K ₂] |
| b) Explain the spoilage of cereal and cereal products with appropriate examples. | 8 | CO1 | [K ₂] |
| 12. a) Rephrase blanching, its methods and advantages. | 8 | CO2 | [K ₂] |

	b)	Discuss canning of beans with a neat flow diagram.	8	CO2	[K ₂]
13.	a)	Illustrate a suitable dryer for drying milk with a neat sketch.	8	CO3	[K ₄]
	b)	Describe contact freezer and immersion freezer along with its applications.	8	CO4	[K ₂]
14.	a)	Explain the steps involved in high pressure processing technique and write its application in various types of food sector.	8	CO5	[K ₂]
	b)	Enumerate the basic principles involved in cold sterilization technique.	8	CO5	[K ₂]
15.	a)	Recall the components of food labelling.	8	CO6	[K ₁]
	b)	Summarize the basic types of packaging materials used in food industry.	8	CO6	[K ₂]
16.	a)	Interpret the principle advantages and disadvantages of osmotic dehydration in food industry.	8	CO3	[K ₂]
	b)	Explain the construction and working of cryogenic freezer with a neat diagram for any product of your interest.	8	CO4	[K ₂]
