

Reg.No.: 

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VIVEKANANDHA COLLEGE OF ENGINEERING FOR WOMEN  
[AUTONOMOUS INSTITUTION AFFILIATED TO ANNA UNIVERSITY, CHENNAI]  
Elayampalayam – 637 205, Tiruchengode, Namakkal Dt., Tamil Nadu.

**Question Paper Code: 90008**

B.E. / B.Tech. DEGREE END-SEMESTER EXAMINATIONS – NOV. / DEC. 2024

Seventh Semester

Computer Science and Engineering

U19BTOE7 – FOOD PROCESSING AND PRESERVATION TECHNOLOGY

(Common to ECE, EEE, IT & BME)

(Regulation 2019)

Time: Three Hours

Maximum: 100 Marks

Answer ALL the questions

Knowledge Levels	K1 – Remembering	K3 – Applying	K5 – Evaluating
(KL)	K2 – Understanding	K4 – Analyzing	K6 – Creating

PART – A

(10 x 2 = 20 Marks)

Q.No.	Questions	Marks	KL	CO
1.	Mr.X having a 100 g of snacks which consists of: - Protein 9 g, Carbohydrate 76 g, Fat 1 g, Fibre 1 g and Sodium in 0.1 g. Express the energy gained by Mr.X in kcal.	2	K3	CO1
2.	List out the enzymes used in the dairy and juice industry.	2	K1	CO1
3.	Define the term “water activity”.	2	K1	CO2
4.	Identify the importance of scalding in poultry processing.	2	K3	CO2
5.	Distinguish between freezing and refrigeration.	2	K2	CO3
6.	Explain 12D concept.	2	K2	CO3
7.	Incline the need of fermentation process.	2	K2	CO4
8.	Name any two chemical preservatives used in the packed foods.	2	K1	CO4
9.	Write down the requirements of the food packaging material.	2	K1	CO5
10.	Compare the primary and secondary food packaging.	2	K2	CO5

PART – B

(5 x 13 = 65 Marks)

Q.No.	Questions	Marks	KL	CO
11. a)	Interpret the important properties of fats that aids in processing of food.	13	K2	CO1
	(OR)			
b)	Explain the various types of food colorants with an example.	13	K2	CO1
12. a)	Outline the steps involved in the production of beer with proper flow diagram.	13	K2	CO2
	(OR)			
b)	Discuss the post harvesting process of vegetables.	13	K2	CO2
13. a)	i. Differentiate sterilisation from pasteurization process.	10	K2	CO3
	ii. How to reduce the deterioration of food quality in sterilization?	3	K1	
	(OR)			
b)	i. Illustrate the different types of freezing methods.	7	K2	CO3
	ii. Draw and describe the freezing curve.	6	K2	
14. a)	Summarize the principle and methods of super critical fluid technology for food preservation.	13	K2	CO4
	(OR)			
b)	Write short notes on the following preservation technology:			
	i. High Pressure	7		
	ii. Membrane Technology	6	K2	CO4
15. a)	Describe how retort pouching and canning used in food packaging.	13	K3	CO5
	(OR)			
b)	Develop a cost-effective packaging for a meat product.	13	K3	CO5

PART – C

(1 x 15 = 15 Marks)

Q.No.	Questions	Marks	KL	CO
16. a)	Explain how do you plan to use hurdle technology to ensure the safety and shelf life of a new food product that you are developing?	15	K5	CO4
	(OR)			
b)	Inspect the role of carbohydrate in the textural properties of food.	15	K4	CO5