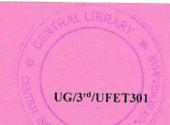
Total number of printed pages:2



2021

PRINCIPLES OF FOOD PROCESSING AND PRESERVATION

Full Marks: 100

Time: Three hours

The figures in the margin indicate full marks for the questions.

Answer any five questions.

	a)	What do you understand by term "Food Preservation"?	2
	b)	List the various principle of food preservation.	3
	c)	Write the importance of blanching process? How blanching process is performed?	4
	d)	Differentiate between "Sterilization" and "Pasteurization" process	3
	e)	Explain the various steps of canning of foods.	8
2.		Explain the working principle of the following dryers with a neat diagram.	
	a)	Fluidized dryer	6
	b)	Tunnel dryer	8
	c)	Drum dryer	6
3.	a)	What is "Case Hardening"? How can we overcome from this?	5
	b)	Define 'D' value (Decimal reduction time) and 'Z' value.	4
	c)	The F value at 121.1°C equivalent to 99.9% inactivation of stain of C. botulinum is 1.23 minute. Calculate the Do value of these organisms.	5
	d)	Calculate the D value of the organism that show 50 survivors from an initial inoculum of 5x10 ⁶ spores after 10 minutes at 121.1°C.	6
4.	a)	With the help of a neat diagram explain the working of spray dryer? How it helps in food preservation?	8

	D)	write the advantages and dis-advantages of spray dryer.	4
	c)	Classify the foods based on their pH, and give examples.	4
	d)	How pH of the food plays important role in food preservation.	4
5.	a)	Indicate preservation techniques for pickles and canned juice, and explain how it is done?	10
	b)	Explain working principle of freeze dryer & its utility in food processing industry.	10
6.	Write short notes on the following		
	a)	Flass-18 process	
	b)	Hot-packing	
	c)	Asepsis	
	d)	Aseptic canning	
7.	a)	What are the main causes of quality deterioration and spoilage of foods?	5
	b)	Write short notes on Food Irradiation? What types of food materials are subjected to irradiation? In what way it preserves food materials?	15

