

Total number of printed pages: 55

B.Tech. (UG)/6thSemester/UFET601

2025

Food Packaging Technology

Full Marks: 100

Time: Three hours

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

Answer any five questions.

1.	a)	What is food packaging? Discuss the properties, advantages, and disadvantages of at least four packaging materials used for food packaging applications.	2+8
	b)	Discuss the four (4) primary functions of food packaging. Why packaging called “Silent Salesman”?	8+2
2.	a)	What is lacquering? Why metal can is lacquered/coated? Discuss about a few lacquering materials.	2+3+5
	b)	Define Active Packaging. What is active emitting system? Write the mechanism and function of antimicrobial and antioxidant emitting systems.	2+2+6
3.		Write short notes on any four (4) of the followings	5x4
	a)	Thermosetting plastics	5
	b)	High density polyethylene (HDPE)	5
	c)	Bioplastics	5
	d)	Can-sizing	5
	e)	Impacts of synthetic plastics on environment	5
4.	a)	With the help of schematic diagram describe various steps of Blow and Press process used for manufacturing of Glass bottles.	10
	b)	Discuss the various steps involved in DRD technique used for making of two-piece tin can.	10
5.	a)	Highlight on the advantages and limitations of plastics as food packaging	5

		material.	
	b)	What is MAP? Write the importance of various gases used in MAP.	5
	c)	What is ECCS? What do you mean by Tin-Can	5
	d)	Enlist the advantages and limitations of glass in food packaging.	5
6.		Differentiate between the followings: -	
	a)	Discuss at least on four common Bioplastics, which are used for food packaging? How bioplastics could be sustainable alternatives to the synthetic plastics?	5+5
	b)	Discuss the working principle of Injection moulding.	10
7.	a)	What is Intelligent packaging? Write the principle and mechanisms of Freshness Indicators.	10
	b)	Write the principle and mechanisms of the Time-Temperature Indicators (TTIs) available in market.	10

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