


<b>Name:</b>			
<b>Enrolment No:</b>			
<div><div>UPES</div><div>End Semester Examination, May 2025</div><div><div>Course: Food Packaging Technology</div><div>Program: B.Tech Food Technology</div><div>Course Code: HSFT3015</div><div>Instructions: All Questions are compulsory</div></div><div><div>Semester: VI</div><div>Duration : 3 Hours</div><div>Max. Marks: 100</div></div></div>			
SECTION A			
S. No.	Short answer questions/ MCQ/T&F (20Qx1.5M= 30 Marks)	30 Marks	CO
1	What do you mean by containment?	1.5 marks	CO1
2	What do you mean by MAP?	1.5 marks	CO1
3	What is lacquering?	1.5 marks	CO4
4	What is thermosetting polymer? Give one example	1.5 marks	CO1
5	Iron oxide and carbon is added in amber type glass material. (a) True (b) False	1.5 marks	CO5
6	What type of spoilage is there in vacuum packaging?	1.5 marks	CO1
7	Glass has the most resistance to temperature changes relative to other packaging materials. (a) True (b) False	1.5 marks	CO4
8	How much percentage of water and fibre are required to make paper sheet forming?	1.5 marks	CO1
9	Define calendaring process.	1.5 marks	CO4
10	A finish is a part of glass bottles where _____ (a) labels are posted (b) cracks can never be formed (c) colors can never be applied (d) closures are applied	1.5 marks	CO1
11	How much percentage of moisture content is reduced in pressing and drying section of paper manufacture, respectively?	1.5 marks	CO1
12	State the composition of blue glass.	1.5 marks	CO5
13	What is the use of foils?	1.5 marks	CO5
14	Differentiate dry waxing and wet waxing.	1.5 marks	CO1
15	Differentiate between FAEO and SOT.	1.5 marks	CO5
16	What temperature is required for the metal sheet to dry in a heated oven?	1.5 marks	CO5
17	Differentiate between rigid and flexible type packaging materials.	1.5 marks	CO1
18	ECCS is less resistant to corrosion than tinplate. (a) True (b) False	1.5 marks	CO5
19	What is the Selection criteria of packaging material for fruits and vegetables?	1.5 marks	CO1
20	Write disadvantages of cans?	1.5 marks	CO5
SECTION B (4Qx5M=20 Marks)			
Q	Short Answer Type Question (5 marks each)	20 Marks	CO

1	What are the basic functions of Food packaging?	5	CO3
2	What are rigid plastics? How they are formed and its functions?	5	CO4
3	Describe about polystyrene? What is the composition and properties of polystyrene?	5	CO1
4	How to choose appropriate packaging material for food?	5	CO2
<b>SECTION C (2Qx15M=30 Marks)</b>			
Q	<b>Two case studies 15 marks each subsection</b>	<b>30 Marks</b>	<b>CO</b>
1	<p>A food industry produces three types of food products viz. Bakery products, wine and vinegar and processed fish products.</p> <p>Now, Is they have to use same packaging material for each type of product or they have to use different packaging material? (3 marks)</p> <p>A. What type of packaging material is used for bakery products and why? (4 marks)</p> <p>B. What type of packaging material is used for wine and vinegar and why? (4 marks)</p> <p>C. What type of packaging material is used for fish products and why? (4 marks)</p>	15	CO3
2	<p>Briefly discuss the manufacturing process of the following containers.</p> <p>(a) Explain glass making process? (5 marks)</p> <p>(b) Give detail procedure of paper making? (5 marks)</p> <p>(c) DWI cans (5 marks)</p>	15	CO2
<b>SECTION- D (2Qx10M=20 Marks)</b>			
Q	<b>Long Answer type Questions (10 marks each)</b>	<b>20 Marks</b>	<b>CO</b>
1	<p>What is plastic? Write different types of plastics with their symbols? (5 marks)</p> <p>What are the drawbacks of plastic in the food industry? Also describe Environmental effect of plastic? (5 marks)</p>	10	CO5
2	<p>a) Discuss the innovative food packaging? Explain two Innovative food packaging? (5 marks)</p> <p>b) What do you mean by smart packaging? Explain two types of smart packaging? (5 marks)</p>	10	CO4