

Name:

Enrolment No:



UPES

End Semester Examination, May 2024

Course: Food Handling and Packaging

Program: B. Sc (Food Nutrition and Dietetics)

Course Code: HSFN3005P

Semester : VI

Duration : 3 Hours

Max. Marks: 100

Instructions: Read all the questions carefully and attend.

S. No.	Section A Short answer questions/ MCQ/T&F (20Qx1.5M= 30 Marks)	Marks	COs
Q1	Which of the following is an example of tertiary packaging? (a) A crate of beer bottle (b) A packet of dried apricot (c) A box of cereal breakfast (d) A shrink wrapped pallet of orange juice	1.5	CO 1
Q2	PEN plastic packaging material is more expensive than PET type. (a) True (b) False	1.5	CO 1
Q3	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	CO 1
Q4	ECCS is less resistant to corrosion than tinplate. (a) True (b) False	1.5	CO 1
Q5	Iron oxide and carbon is added in amber type glass material. (a) True (b) False	1.5	CO 1
Q6	Glass has the most resistance to temperature changes relative to other packaging materials. (a) True (b) False	1.5	CO 1
Q7	_____ is a process which reduces the residual strain in the glass container that has been introduced in the forming process. (a) Lacquering (b) Electroplating	1.5	CO 1

	(c) Canning (d) Annealing		
Q8	Differentiate between packing and packaging.	1.5	CO 2
Q9	How much percentage of water and fibre are required to make paper sheet forming?	1.5	CO 2
Q10	Define calendaring process.	1.5	CO 2
Q11	Differentiate between HDPE and LDPE.	1.5	CO 2
Q12	How much percentage of moisture content is reduced in pressing and drying section of paper manufacture, respectively?	1.5	CO 2
Q13	State the composition of blue glass.	1.5	CO 2
Q14	What is the use of hydropulper in paper manufacturing process?	1.5	CO 2
Q15	Differentiate dry waxing and wet waxing.	1.5	CO 3
Q16	Differentiate between FAEO and SOT.	1.5	CO 3
Q17	What temperature is required for the metal sheet to dry in a heated oven?	1.5	CO 3
Q18	What is thermosetting polymer? Give one example.	1.5	CO 3
Q19	Differentiate between rigid and flexible type packaging materials.	1.5	CO 3
Q20	Give some examples of coating materials used in can.	1.5	CO 3
<b>Section B</b> <b>(4Qx5M=20 Marks)</b>			
Q1	(a) How is PET type plastic packaging materials formed? (2 marks) (b) Discuss its advantages. (3 marks)	5	CO 1
Q2	Differentiate between hot end and cold end treatment of glass.	5	CO 2
Q3	Differentiate between Tin and TFS for can making.	5	CO 3
Q4	How the shelf life of food can be increased?	5	CO 3
<b>Section C</b> <b>(2Qx15M=30 Marks)</b>			
Q1	Briefly discuss the following manufacturing process of cans used in can packaging industry. (a) Three piece welded can (5 marks) (b) DRD cans (5 marks)	15	CO 4

	(a) DWI cans (5 marks)		
Q2	Discuss the following manufacturing process in details with a net diagram. (Any 3) (a) Press and blow & Blow and blow process (5 marks) (b) Sheet forming method for paper manufacture (5 marks) (c) Closure selection of glass (5 marks) (a) Container forming in glass manufacturing process (5 marks)	15	CO 5
<b>Section D</b> <b>(2Qx10M=20 Marks)</b>			
Q1	Discuss the following end making processes of metal can packaging materials. (a) Plain end forming process (5 marks) (b) Easy open end forming process (5 marks)	10	CO 4
Q2	(a) Explain the manufacturing of tin and ECCS used in can making process (5 marks) (b) Discuss the advantages of the various materials utilized in the process of manufacturing cans (5 marks)	10	CO 5