


Name:			
Enrolment No:			
UNIVERSITY OF PETROLEUM AND ENERGY STUDIES End Semester Examination, December 2022			
Course: Food Packaging Technology		Semester: 6 th	
Program: B.Tech (Food Technology)		Duration: 3 Hours	
Course Code: HSFT3011		Max. Marks: 100	
Instructions:			
S. No.	Section A Short answer questions/ MCQ/T&F (20Qx1.5M= 30 Marks)	Marks	COs
Q 1			
1	Differentiate between packing and packaging.	1.5	CO 1
2	PEN plastic packaging material is more expensive than PET type. (a) True (b) False	1.5	CO 1
3	What is thermosetting polymer? Give one example.	1.5	CO 1
4	Differentiate between HDPE and LDPE.	1.5	CO 1
5	Give some examples of blister packaging material.	1.5	CO 1
6	Iron oxide and carbon is added in amber type glass material. (a) True (b) False	1.5	CO 1
7	Glass has the most resistance to temperature changes relative to other packaging materials. (a) True (b) False	1.5	CO 2
8	How much percentage of water and fibre are required to make paper sheet forming?	1.5	CO 2
9	Define calendaring process.	1.5	CO 2
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	CO 2
11	How much percentage of moisture content is reduced in pressing and drying section of paper manufacture, respectively?	1.5	CO 2
12	State the composition of blue glass.	1.5	CO 2
13	What is the use of hydrapulper in paper manufacturing process?	1.5	CO 2
14	Differentiate dry waxing and wet waxing.	1.5	CO 3
15	Differentiate between FAEO and SOT.	1.5	CO 3

16	What temperature is required for the metal sheet to dry in a heated oven?	1.5	CO 3
17	ECCS is less resistant to corrosion than tinplate. (a) True (b) False	1.5	CO 3
18	Differentiate between rigid and flexible type packaging materials.	1.5	CO 3
19	Give some examples of coating materials used in can.	1.5	CO 3
20	What is the use of beading machine in can making process?	1.5	CO 3
Section B (4Qx5M=20 Marks)			
Q 1			
1	How is PET type plastic packaging materials formed? (2 marks) Discuss its advantages. (3 marks)	5	CO 1
2	Differentiate between hot end and cold end treatment of glass.	5	CO 2
3	Differentiate between Tin and TFS for can making.	5	CO 3
4	How the shelf life of food can be increased?	5	CO 3
Section C (2Qx15M=30 Marks)			
Q 1			
1	Briefly discuss the manufacturing process of the following containers. (a) Three piece welded can (5 marks) (b) DRD cans (5 marks) (c) DWI cans (5 marks)	15	CO 4
2	Discuss the following terms in details. (Any 3) (a) Press and blow & Blow and blow process (5 marks) (b) Sheet forming method for paper manufacture (5 marks) (c) Water vapour transmission rate and measurement (5 marks) (d) Closure selection of glass (5 marks)	15	CO 5
Section D (2Qx10M=20 Marks)			
Q 1			
1	Discuss the quality attributes of food packaged in glass containers.	10	CO 4
2	Discuss the processing steps of food and drinks in metal packages.	10	CO 5