

GURU NANAK INSTITUTE OF TECHNOLOGY
An Autonomous Institute under MAKAUT
2022
FOOD PACKAGING TECHNOLOGY
FT703A

TIME ALLOTTED: 3Hours

FULL MARKS:70

*The figures in the margin indicate full marks.**Candidates are required to give their answers in their own words as far as practicable***GROUP – A****(Multiple Choice Type Questions)**Answer any **ten** from the following, choosing the correct alternative of each question: **10×1=10**

	Marks	CO No
1. i) Plastics are a) Compostable b) Non compostable c) Biodegradable d) none of these	1	CO4
ii) DRD process is used for a) TFS made can b) Two-pieces can c) Three pieces can d) Paper	1	CO2
iii) The packaging material used for packaging fats and oils is a) HDPE b) LLDPE c) Nylon d) PP	1	CO1
iv) Bio-degradable film can be produced from a) LDPE b) Chitosan c) PP d) PVC	1	CO3
v) What does FSS stand for? a) Food set and sound b) Food Secure and Safe c) Food Safety and Security d) Food sour and sign	1	CO4
vi) Hydrapulper is used to produce which one of the following during paper manufacturing? a) Pulp b) Stock c) Sheet d) All of the above	1	CO4

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|-------|------------------------------------------------------------------------------------|---|-----|
| vii) | The principle ingredient of glass is | 1 | CO2 |
| | a) Calcium oxide | | |
| | b) Alumina | | |
| | c) Silica | | |
| | d) Potash Alum | | |
| viii) | Biodegradable film can be produced from | 1 | CO3 |
| | a) LDPE | | |
| | b) Chitosan | | |
| | c) PP | | |
| | d) PVC | | |
| ix) | Which of the following products can be vacuum-packed? | 1 | CO4 |
| | a) Cookies | | |
| | b) Walnuts | | |
| | c) Crackers | | |
| | d) Milk | | |
| x) | According to CODEX standards, which of the following food items is hypersensitive? | 1 | CO3 |
| | a) Cereals | | |
| | b) Nuts | | |
| | c) Milk Products | | |
| | d) All of the mentioned | | |
| xi) | When was Fruit Products Order (FPO) enacted? | 1 | CO1 |
| | a) 1937 | | |
| | b) 1974 | | |
| | c) 1955 | | |
| | d) 1951 | | |
| xii) | What is the full form of LDPE? | 1 | CO1 |
| | a) Linear Low Density Polyethylene | | |
| | b) Linear Low Density Polystyrene | | |
| | c) Labeled Low Density Polyethylene | | |
| | d) None of the above | | |

GROUP – B**(Short Answer Type Questions)**(Answer any *three* of the following) **3 x 5 = 15**

- | | | Marks | CO No |
|----|-----------------------------------------------------------------------------------------------|--------------|--------------|
| 2. | How would you choose a traditional packaging material for the packaging of semisolid food? | 5 | CO1 |
| 3. | What are the important factors for transportation of fruit & vegetable packages? | 5 | CO4 |
| 4. | What is the factor during Life Cycle Related Considerations of glass as a packaging material? | 5 | CO2 |

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|----|-----------------------------------------------------------|---|-----|
| 5. | What are Oxo-Biodegradable (OBD) Polymers? | 5 | CO3 |
| 6. | Discuss the lap seal and fin seal with the proper example | 5 | CO4 |

GROUP – C

(Long Answer Type Questions)
(Answer any *three* of the following) **3 x 15 = 45**

- | | | Marks | CO No |
|--------|---------------------------------------------------------------------------------------------------------|--------------|--------------|
| 7. a. | Define primary, secondary, and tertiary packaging and their function with reference to a bakery product | 5 | CO1 |
| b. | What could be the potential application(s) of nano-polymer in food packaging? | 5 | CO1 |
| c. | What are the advantages of edible packaging material? | 5 | CO1 |
| 8. a. | Comment on the advantages of using glass as a food-packaging material. | 7 | CO3 |
| b. | Briefly discuss the methods of forming process for manufacturing glass jars and bottles. | 8 | CO3 |
| 9. a. | Discuss the role of oxygen scavenger in an active packaging system | 5 | CO4 |
| b. | What is modified atmosphere packaging (MAP)? Give potential example | 5 | CO4 |
| c. | What are the differences between modified atmosphere packaging & intelligent/smart packaging? | 5 | CO4 |
| 10. a. | what are the factors against the reduction of packaging cost compared to the present economic scenario? | 5 | CO3 |
| b. | What are nanocomposite applications in food packaging? | 5 | CO3 |
| c. | Discuss the Hierarchy of Waste Proposal for plastic. | 5 | CO3 |
| 11. a. | Comment on the advantages of using glass as a food-packaging material. | 7 | CO3 |
| b. | Briefly discuss the methods of forming process for manufacturing glass jars and bottles | 8 | CO3 |