

B.Tech. Food Technology
Semester VII – Examination, 2024
Paper Title: Food Packaging Technology
Paper Code: BFTC-701

Time: 3 hours

Maximum Marks: 75

Section A: 1 marks each question (All the questions are compulsory)

1. List two primary roles of food packaging.
2. Name the key components of glass closures used in packaging.
3. What is the purpose of aluminum containers in food packaging?
4. Define the term "lacquer" in metal packaging.
5. What is the significance of tinplate in food packaging?
6. State one difference between tinplate and tin-free steel.
7. Mention one advantage of using plastics in food packaging.
8. What are the key properties of retort pouches?
9. Define bursting strength in packaging materials.
10. What does the term "puncture resistance" mean in food packaging?
11. State the importance of barrier properties in packaging.
12. Explain the term "permeability coefficient."
13. What is the function of ethylene scavengers in packaging?
14. Name one technique used in intelligent packaging.
15. What is the principle behind controlled atmosphere packaging?

Section B: 6 marks each question (Attempt any five)

16. Describe the properties and applications of glass in food packaging.
17. Compare the roles and characteristics of rigid, semi-rigid, and flexible packaging materials.
18. Explain the mechanical properties of packaging materials and their importance in food packaging.
19. Explain the working principles and classifications of time-temperature indicators (TTIs).
20. Discuss the significance of antimicrobial food packaging with examples.
21. How does vacuum packaging preserve food products? Discuss its process and benefits.
22. Describe the role of biodegradable and edible films in sustainable food packaging.

Section C: 15 marks each question (Attempt any two)

23. Discuss in detail the factors influencing the permeability of packaging materials and their impact on food quality.
24. Explain the various active packaging techniques, their mechanisms, and examples.
25. Describe the principles, processes, and applications of aseptic packaging and its significance in food safety.
26. Write a comprehensive note on the combination of modified atmosphere packaging (MAP) with other preservation techniques, focusing on benefits and limitations.

Q. No.	Mapping	Q. No.	Mapping	Q. No.	Mapping
1	CO3,4; PO1,8	11	CO6;PO1,3	21	CO6,7;PO1,4,10
2	CO5;PO1,4	12	CO6,7;PO1,4,8	22	CO5,7;PO1,6,10
3	CO5,7;PO1,10	13	CO6;PO1,2,3	23	CO6,7;PO1,2,3,8
4	CO5;PO1,4	14	CO6,7;PO1,4,8	24	CO6,7;PO1,2,6,10
5	CO5,6;PO1,8	15	CO6,7;PO1,4,10	25	CO6,7;PO1,2,3,6
6	CO5;PO1,4	16	CO5,6,7;PO1,2,4,6	26	CO6,7;PO1,2,4,6,10
7	CO5;PO1,8	17	CO3,4,5;PO1,2,3		
8	CO5,6;PO1,8	18	CO6;PO1,3,8		
9	CO6;PO1,2	19	CO6,7;PO1,2,4		
10	CO6;PO1,2	20	CO6,7;PO1,10		