

B.Tech,
2022
7th Sem.

Roll No:

B.Tech Food Technology
Semester VII – Examination, 2022
Paper Title: Food Packaging Technology
Paper Code: BFTC-701

Time: 3 hours

Maximum Marks: 75

Attempt all questions. Marks are mentioned against each question.

Section A (15+20=35)

- Q1. (A) Answer in about 20-30 words (1x10=10)**
- (a) What does ASTM stand for?
 - (b) List out the basic parts of a glass bottle.
 - (c) Give out examples of oxygen absorbing systems used in active packaging systems.
 - (d) Name the layers with their use in the making of a Tetra Pak.
 - (e) Define stress concentrator in terms of a glass?
 - (f) What is BOPP?
 - (g) Give out examples of ethylene absorbing systems used in active packaging systems.
 - (h) Define tensile strength for a rigid packaging material.
 - (i) Define a closure.
 - (j) What are retort pouches?
- (B) Fill in the blanks (1x5=5)**
- (a) RFID stands for _____
 - (b) The chemicals used in kraft process of paper manufacturing are _____ & _____.
 - (c) _____ cans are used for basic foods.
 - (d) Chine clay is used in paper manufacture as a _____.
 - (e) Carbon and sulphide are added to make _____ glass.
- Q2. Write short notes on any four of the following (4x5=20)**
- (a) Paper as packaging material
 - (b) Functions of food packaging
 - (c) Lacquers and its importance
 - (d) Edible films
 - (e) Prediction of shelf-life of foods

Section B (4x10=40)

- Q3. Attempt any four of the following (4x10=40)**
- (a) Give in detail the classification of TTI's. List out the requirements for TTI's to be used in the food industry.
 - (b) Define active packaging. Explain with examples the active packaging techniques used in food packaging systems and their respective food applications.
 - (c) What is aseptic packaging? Give in detail the packaging system required for packaging of dairy products.
 - (d) Describe in detail the process of tinning used in the manufacture of tinplate containers. What is Tin free steel?
 - (e) Write the theory of permeability using Henry's law of solubility and Fick's law of diffusion considering permeability model for gas or vapour transfer through a polymer.
 - (f) What are intelligent packaging systems? Give its types and briefly discuss about the Quality indicators used in food industry.