

**B.Sc. FOOD SCIENCE & TECHNOLOGY
FOURTH FSEMESTER
FOOD PACKAGING TECHNOLOGY
BFST – 403 [REPEAT]**

(Use Separate Answer Scripts for Objective & Descriptive)

Duration: 3 hrs.

Full Marks: 70

[PART-A: Objective]

Time: 20 min.

Marks: 20

Choose the correct answer from the following:

1X20=20

1. Packaging is an essential part offoods.
 - a. Processing and distribution
 - b. Heating and cooling
 - c. Manufacturing and marketing
 - d. All of them
2. LDPE stands for
 - a. Long distance polyethylene
 - b. Low density polyethylene
 - c. Light density propylene ether
 - d. None of the above
3. The outer box, case or wrapper that holds several packages and not come in direct contact with food is called
 - a. Primary package
 - b. Secondary package
 - c. Tertiary package
 - d. Quaternary package
4. The package which comes in direct contact with food is called
 - a. Primary package
 - b. Secondary package
 - c. Tertiary package
 - d. Quaternary package
5. Nicolas Appert produced the means of thermally preserving food in hermetically sealed
 - a. Glass jars
 - b. Metal cans
 - c. Earthen pot
 - d. PET jar
6. What is WVTR?
 - a. Water to Vapour transient rate
 - b. Water to vapour transfer rate
 - c. Water Vapour transmission rate
 - d. Water to vapour total ratio
7. To measure permeability of filmmethod is used.
 - a. Concentration increases method
 - b. Detector film method
 - c. Pressure increase method
 - d. Volume increase method
8. Most important UV absorber is
 - a. Inorganic compound
 - b. Organic compound
 - c. Natural compound
 - d. None of the above
9. Ethylene production is high in
 - a. Banana
 - b. Pineapple
 - c. Apricot
 - d. Orange

10. Which of the following paper is strongest
- | | |
|--------------------|-------------------|
| a. Parchment paper | b. Glassine paper |
| c. Hard wood paper | d. Kraft paper |
11. FFS packaging stands for
- | | |
|-------------------|-------------------|
| a. Fold fill seal | b. Fold file seal |
| c. Form file seal | d. Form fill seal |
12. Which of the following is produced by mixing sulphite paper pulp with caustic soda?
- | | |
|-------------|------------------------|
| a. Glass | b. Cellulose films |
| c. Plastics | d. None of the options |
13.paper is lighter and weaker than sulphate papers
- | | |
|-----------------|--------------|
| a. Kraft | b. Sulphite |
| c. Both A and B | d. Cellulose |
14. For packaging of cheese spreads..... is
- | | |
|---------------|------------------|
| a. Metal cans | b. Glass bottles |
| c. HDPE | d. All of these |
15. Cellulose -polyethylene- cellulose laminate is used infood products.
- | | |
|-----------------|-----------------|
| a. Ice creams | b. Baked goods |
| c. Cooked meats | d. All of these |
16. Which of the following paper is strong paper which is used for 25-50 kg multi-wall sacks for powders, flour, sugar, fruits and vegetables.
- | | |
|-----------------|------------------------|
| a. Kraft | b. Vegetable parchment |
| c. Both A and B | d. Cardboard |
17. From a packaging point of view very important property of coffee/tea is
- | | |
|------------------|-----------------|
| a. Particle size | b. Bulk density |
| c. Density | d. Moisture |
18. Which of the following food products can be packed in MAP?
- | | |
|-----------|---------------------|
| a. Meat | b. Fish |
| c. Fruits | d. All of the above |
19. Outermost layer of tetrapak is
- | | |
|-----------------|------------------------|
| a. Polyethylene | b. Aluminium |
| c. Cardboard | d. None of the options |
20. The egg packs and the trays used for apples and other fresh produce are example of
- | | |
|-------------------------|-----------------------------------|
| a. Laminated paperboard | b. Moulded pulp containers |
| c. Crafted paperboard | d. Oldest form of paperboard pack |

PART-B : Descriptive

Time : 2 hrs. 40 min.

Marks : 50

[Answer question no.1 & any four (4) from the rest]

- | | |
|--|--------|
| 1. Write the notes on Vacuum packaging and Shrink packaging. | 5+5=10 |
| 2. Discuss about the types of packaging. Explain the packaging material. | 5+5=10 |
| 3. Give an detailed account on the following :
a. Aseptic packaging
b. Modified Atmosphere Packaging | 5+5=10 |
| 4. Explain the different techniques used for measurement of permeability in packaging material. | 10 |
| 5. Write an essay on packaging tests. | 10 |
| 6. "Light and oxygen affects the quality of food." Justify | 10 |
| 7. Discuss about the packaging material use for cereals and pulses. | 10 |
| 8. Specify packaging material needed for milk and milk products. | 10 |

= = *** = =