

(ii) WVTR

(iii) Grease Resistance Testing in Packaging

(iv) Packaging Considerations for Fats and Oils

(v) Biodegradable Packaging Films

6. (a) What is sustainable packaging? Discuss the environmental implications of green packaging solutions and their role in reducing the carbon footprint of packaging systems. (9)

(b) Define Life Cycle Assessment (LCA) in the context of food packaging. Explain its methodology and the importance of conducting LCA studies for packaging material selection. (9)

7. (a) Summarize the key provisions of the Food Safety and Standards (Packaging and Labelling) Regulations, 2018 (FSSAI) applicable to the packaging of processed foods. (9)

(b) Discuss the importance of transport worthiness in food packaging. Describe any three tests conducted to evaluate the durability of packaged foods during distribution. (9)

(300)

[This question paper contains 4 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 5510

J

Unique Paper Code : 2202033601

Name of the Paper : Food Packaging

Name of the Course : **B.Sc. (Hons) Food Technology (NEP-UGCF)**

Semester : VI, Core

Duration : 3 Hours

Maximum Marks : 90

Instructions for Candidates

1. Write your Roll. No. on the top immediately on receipt of this question paper.
2. Attempt **any five** questions.
3. **Question No. 1** is compulsory.
4. **All questions** carry equal marks.

1. Answer briefly (**any nine**) (2 x 9=18)

(i) Parison

P.T.O.

5510

2

- (ii) GOB
- (iii) COBB test
- (iv) Corrugated board
- (v) HDPE
- (vi) ECCS
- (vii) LCA
- (viii) Label
- (ix) Kraft paper
- (x) Carbon foot print

2. Answer the following

- (a) Discuss the status and role of the food packaging industry in India, highlighting its contribution to food safety, shelf life extension, and reduction in food losses. (9)
- (b) Describe the manufacturing processes and applications of **any two** flexible packaging materials used in food packaging

5510

3

- (i) Paper
- (ii) Plastic films
- (iii) Laminates
- (iv) Aluminum foil (9)

3. (a) Explain the manufacturing process and applications of rigid packaging materials, focusing on metal containers and glass bottles. (9)

(b) Explain the specific packaging requirements for frozen foods and moisture-sensitive foods. Highlight the barrier properties needed in packaging materials. (9)

4. Write brief notes on the following advanced packaging systems (Any two):/ (9x2=18)

- (a) Aseptic Packaging
- (b) Active Packaging
- (c) Intelligent Packaging

5. Write short notes on any three of the following: (6x3= 18)

- (i) Composite Cartons

P.T.O.