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FIFTH SEMESTER (CUFYUGP) DEGREE EXAMINATION, NOVEMBER 2026

FOOD TECHNOLOGY

FTL5CJ301 - Food Engineering and Packaging Technology

2024 Admission

Maximum Time :2 Hours	**Maximum Marks :70**

Section A

All Question can be answered. Each Question carries 3 marks (Ceiling: 24 Marks)

1	Differentiate between true density and bulk density with suitable examples
2	Define specific heat and explain its importance in food processing operations.
3	Explain the principle of evaporation and its applications in food processing
4	Compare chilling and freezing with suitable examples
5	Brief the classification of extruders used in food processing
6	Classify polymers used in food packaging with suitable examples
7	Brief intelligent packaging systems with suitable examples
8	Clarify the role of packaging in extending the shelf life of foods.
9	Explain the properties and applications of aluminium foil in food packaging.
10	Justify insect-resistant packaging and its importance

Section B

All Question can be answered. Each Question carries 6 marks (Ceiling: 36 Marks)

11	Describe the mechanical properties of food materials and discuss their importance during harvesting, transportation and processing
12	Explain the principle of evaporation and discuss its applications in the food industry
13	Discuss the factors influencing the efficiency of size reduction equipment
14	Compare blanching and freezing as food preservation techniques based on principle, advantages and applications.
15	Describe the criteria for selecting suitable packaging materials for different food products
16	Give details about the construction, advantages and applications of composite cans.
17	Explain the construction, principle and applications of aseptic packaging.
18	Discuss suitable packaging materials and packaging systems for fresh fruits and vegetables

Section C

Answer any ONE. Each Question carries 10 marks (1x10=10 Marks)

19	Discuss the importance of heat transfer in food processing operations such as pasteurization, sterilization, evaporation and drying.
20	Explain the construction of corrugated fibreboard. Discuss the functions of liners, fluting and adhesives in CFB. Explain the importance, advantages, limitations and applications of wooden containers in food packaging.