



LOYOLA COLLEGE (AUTONOMOUS) CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – BIOTECHNOLOGY

THIRD SEMESTER – NOVEMBER 2024

PBT3ID01 – PRINCIPLES OF FOOD PROCESSING



Date: 16-11-2024

Dept. No.

Max. : 100 Marks

Time: 01:00 pm-04:00 pm

SECTION A – K1 (CO1)

Answer ALL the questions

(5 x 1 = 5)

1 Choose the best option

- a) 50% of food packaging in US is based on _____
i) Paper ii) Plastic iii) Glass iv) Fiber
- b) Source of pulsed light is _____
i) Sodium vapour lamp ii) Mercury flash lamp
iii) Inert gas flash lamp iv) IR flash lamp
- c) Bleaching of fats and oils is done using _____
i) Activated carbon ii) Nitrogen iii) Oxygen iv) Hydrogen
- d) The natural acid present in apple is _____
i) Malic acid ii) Citric acid iii) Tartaric acid iv) Ascorbic acid
- e) Perimysium in muscle fiber is also called as _____
i) Myofibril ii) Endomysium iii) 2° bundle iv) 1° bundle

SECTION A – K2 (CO1)

Answer ALL the questions

(5 x 1 = 5)

2 Answer in one or two sentences

- a) Comment on organoleptic properties of food.
- b) Differentiate GMP and GHP.
- c) Expand HDPE and LDPE.
- d) What are cocoa nibs?
- e) Signify white index and yolk index.

SECTION B – K3 (CO2)

Answer any THREE of the following

(3 x 10 = 30)

- 3 Relate shelf life of foods and classify accordingly with examples.
- 4 Describe the functions of food packaging.
- 5 Discuss the application of commercial sterilization. Give examples.
- 6 Explain the chemical composition of fruits and vegetables.
- 7 Enumerate the various factors that affects the perishability of fish.

SECTION C – K4 (CO3)

	Answer any TWO of the following (2 x 12.5 = 25)
8	Categorize methods of drying and factors that influence drying.
9	Discuss water in foods, moisture sorption and desorption with examples and kinetics.
10	Illustrate the various steps involved in dry milling of pulses.
11	Discuss in detail the various fermented milk products.

SECTION D – K5 (CO4)

	Answer any ONE of the following (1 x 15 = 15)
12	Grade roles of FSSAI, ISO, HACCP and Codex Alimentarius in food safety.
13	Summarize the various refining methods involved in the processing of oils.

SECTION E – K6 (CO5)

	Answer any ONE of the following (1 x 20 = 20)
14	Elaborate unit operations in food processing.
15	Compile the biochemical changes involved in Rigor Mortis and its effect on the quality attributes of meat.

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