LOYOLA COLLEGE (AUTONOMOUS) CHENNAI – 600 034

M.Sc. DEGREE EXAMINATION – **BIOTECHNOLOGY**

THIRD SEMESTER – **APRIL 2025**

PBT3ID01 – PRINCIPLES OF FOOD PROCESSING

Date: 05-05-2025 Dept. No. Max. : 100 Marks

Time: 09:00 AM - 12:00 PM

	SECTION A – K1 (CO1)	
	Answer ALL the questions	**(5 x 1 = 5)**
1	**Choose the best option**	
a)	An example of a non-pulse. i) Soybeans ii) Rajma iii) Beans iv) Urad dhal	
b)	The egg shell is composed of i) Calcium carbonate ii) Magnesium iii) Yolk iv) Albumen	
c)	Which of the following is a common food preservative? i) Salt ii) Sugar iii) Vinegar iv) All of the above	
d)	What is the term used to describe the process of preserving food by heating it to a high temperature and then cooling it rapidly? i) Blanching ii) Freezing iii) Canning iv) Dehydration	
e)	The term used to describe the process of adding water to dehydrated food to restore its original form is called i) Rehydration ii) Dehydration iii) Moisture retainment iv) All of the above	
	SECTION A – K2 (CO1)	
	Answer ALL the questions	**(5 x 1 = 5)**
2	**Answer in one or two sentences**	
a)	What is Hydrogenation of oils?	
b)	Give an example of non-climacteric fruits.	
c)	Define Haughs Unit.	
d)	Comment on lyophilization.	
e)	Differentiate additives and enhancers.	
	SECTION B – K3 (CO2)	
	Answer any THREE of the following	**(3 x 10 = 30)**
3	Outline the legislative guidelines for food safety.	
4	Comment on the properties of processed cereal products with examples.	
5	Discuss in detail the steps involved in wet milling of pulses with a neat flow diagram.	
6	Explain the different spoilage factors of fruits and vegetables.	
7	Demonstrate sliding filament theory with a neat diagram.	
	SECTION C – K4 (CO3)	
	Answer any TWO of the following	**(2 x 12.5 = 25)**
8	Discuss in detail the concept of blending of oils.	
9	Explain the functional properties of egg.	
10	Analyze cleaning and sanitation methods in membrane systems.	
11	Write in detail the processing of rice.	

	SECTION D – K5 (CO4)	
	Answer any ONE of the following	**(1 x 15 = 15)**
12	Evaluate novel processing techniques in food processing.	
13	Summarize any 3 methods of preservation of fish.	
	SECTION E – K6 (CO5)	
	Answer any ONE of the following	**(1 x 20 = 20)**
14	Compile the various steps involved in the manufacturing of chocolate from cocoa beans.	
15	Illustrate the structure of cereals and millets and tabulate their nutrient composition.	

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