

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)**

**BSc DEGREE EXAMINATION DECEMBER 2024
(Third Semester)**

Branch - NUTRITION, FOOD SERVICE MANAGEMENT AND DIETETICS

FOOD PROCESSING

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks

(10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Which type of rice undergoes a steaming process before milling? a) White rice b) Parboiled rice c) Instant rice d) Broken rice	K1	CO1
	2	Show the primary utilization of rice milling by-products in agriculture. a) Animal feed b) Beverage production c) Medicine manufacturing d) Cosmetic industry	K2	CO1
2	3	Which system in wheat milling involves grinding the wheat kernel into finer particles? a) Cleaning system b) Conditioning system c) Break system d) Reduction system	K1	CO1
	4	Relate the purpose of fortifying wheat flour. a) To enhance taste b) To add color c) To increase nutritional value d) To prolong shelf life	K2	CO1
3	5	What is the traditional method used in dhal milling? a) Cold pressing b) Dry milling c) Wet milling d) Heat processing	K1	CO5
	6	Show the main objective of hydrogenation in oil processing. a) To reduce fat content b) To solidify the oil c) To remove impurities d) To enhance aroma	K2	CO3
4	7	Which of the following is a common type of algae used as a protein source? a) Chlorella b) Lentinula c) Agaricus d) Pleurotus	K1	CO3
	8	Relate the nutritional significance of fish protein concentrate. a) Low in vitamins b) High in protein c) High in carbohydrates d) Low in minerals	K2	CO2
5	9	What is the primary chemical constituent of cocoa beans? a) Caffeine b) Theobromine c) Citric acid d) Ascorbic acid	K1	CO2
	10	Show the function of high hydrostatic pressure (HHP) in food preservation. a) Adds flavor b) Destroys microorganisms c) Increases sweetness d) Reduces calorie content	K2	CO4

Cont...

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Relate the steps involved in processing of puffed rice.	K2	CO1
	(OR)			
	11.b.	Plan a cereal production process that incorporates both rice and millet.	K3	
2	12.a.	Identify and outline the break system in wheat milling, detailing its significance.	K3	CO2
	(OR)			
	12.b.	Examine the potential benefits and limitations of fortifying rice with essential nutrients.	K4	
3	13.a.	Show the process of solvent extraction in oil processing.	K2	CO3
	(OR)			
	13.b.	Analyze the differences between traditional and improved methods of pulse processing and their impact on nutritional value.	K4	
4	14.a.	Plan a cultivation strategy for edible mushrooms, covering essential steps from cultivation to processing.	K3	CO4
	(OR)			
	14.b.	Discover and categorize the primary protein sources obtained from algae and fish, emphasizing their nutritional relevance.	K4	
5	15.a.	Apply the principles of cocoa processing to design a flowchart for chocolate production.	K3	CO5
	(OR)			
	15.b.	Compare the wet and dry processing methods of coffee and discuss their effects on flavor and aroma.	K4	

SECTION -C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Analyze the processing steps for manufacturing instant rice and assess how each step influences the final product's texture and nutritional content.	K4	CO1
2	17	Examine the steps in wheat milling, specifically the conditioning process, and evaluate its importance in producing high-quality flour.	K4	CO2
3	18	Discover the benefits and challenges of cold pressing in oil extraction, and compare it with other extraction methods in terms of quality and nutritional value.	K4	CO3
4	19	List the stages in processing fish protein concentrate and compare its production with that of algae-based protein sources.	K4	CO4
5	20	Survey the applications of pulsed electric fields (PEFs) and ultrasound (US) in the food industry and categorize their effects on different types of food products.	K4	CO5