

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2024
(Second Semester)

Branch – FOOD TECHNOLOGY MANAGEMENT

GRAIN SCIENCE TECHNOLOGY

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	Name the process in which corn hydrated in order to loosen starch granules from the protein matrix? a. Soaking b. Steeping c. Hydration d. Dehydration	K1	CO1
	2	Show the component that is not typically found in corn. a. Starch b. Protein c. Cellulose d. Chitin	K2	CO1
2	3	Find the enzyme that cause rancidity in rice bran. a. Proteinase b. hydrolase c. lipase d. lyases	K1	CO2
	4	Relate the process of paddy Parboiling. a. Hydrothermal process b. Hydration process c. Thermal process d. Dehydration process	K2	CO2
3	5	Which stage in milling involves the separation of endosperm from germ and bran? a. Sieving and purification system b. Break system c. Reduction system d. Tempering	K1	CO3
	6	Show the test that is used to determine the gluten strength of the dough in flour quality evaluation. a. Viscoamylograph b. Extensograph c. Amylograph d. Alveograph	K2	CO3
4	7	Which of the following is not a byproduct of millet processing? a. Bran b. Flour c. Husk d. Gluten	K1	CO4
	8	Infer on environmental benefit associated with cultivating of millets. a. drought resistance b. soil erosion c. excess water usage d. high carbon footprint	K2	CO4
5	9	Choose the pretreatment followed in dry milling. a. Treatment with wet earth b. Soaking in water c. Treatment with oil d. Soaking in hot water	K1	CO5
	10	Relate the purpose of roasting cashew nuts. a. To improve flavour and aroma b. To soften the shell c. To remove toxins d. To increase moisture content	K2	CO5

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.	Analyse the Post harvest losses in cereals.	K4	CO1
	(OR)			
	11.b.	Examine on Pseudo cereals types and composition.		
2	12.a.	Compare flaked and puffed rice.	K4	CO2
	(OR)			
	12.b.	List the instruments used in rice quality analysis and explain.		
3	13.a.	Construct the steps in the manufacturing process for production steamed wheat products.	K3	CO3
	(OR)			
	13.b.	Identify the role of wheat enzymes in manufacture of wheat products.		
4	14.a.	Select the methods used in production of extruded snacks from millets.	K3	CO4
	(OR)			
	14.b.	Develop the process steps in manufacture of bakery products from millets.		
5	15.a.	Explain processing and value addition of cashew nut.	K5	CO5
	(OR)			
	15.b.	Determine the barrier compound in the utilization of oil seed proteins.		

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	Discuss wet and dry milling of corn.	K3	CO1
2	17	Evaluate rice milling operations on parboiled and steamed rice and its effect on nutritive value of rice.	K3	CO2
3	18	Discuss quality control and standards of wheat and wheat products.	K4	CO3
4	19	Discuss in detail about bioactive compounds and their health benefits of millets.	K4	CO4
5	20	Discuss dry and wet milling of pulses.	K5	CO5

Z-Z-Z

END