25FPB207 / 22FPB207N

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BVoc DEGREE EXAMINATION MAY 2026
(Second Semester)

Branch – **FOOD PROCESSING TECHNOLOGY**

GRAIN 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	Which of the following is NOT a method of grain drying? (i) Sun drying (ii) LSU dryer (iii) Freeze drying (iv) Parboiling	K1	CO1
	2	The process of parboiling of rice results in: (i) Loss of nutrients (ii) Gelatinization of starch (iii) Increased breakage during milling (iv) Reduced shelf life	K2	CO1
2	3	The viscoelastic property of wheat dough is primarily due to: (i) Starch (ii) Gluten (iii) Lipids (iv) Fiber	K1	CO2
	4	Falling number in wheat flour indicates: (i) Protein content (ii) Alpha-amylase activity (iii) Ash content (iv) Moisture level	K2	CO2
3	5	Which millet is also known as finger millet? (i) Pearl millet (ii) Foxtail millet (iii) Ragi (iv) Little millet	K1	CO3
	6	The wet milling process of maize primarily produces: (i) Maize flour (ii) Corn oil (iii) Starch (iv) All of the above	K2	CO3
4	7	CFTRI method is associated with milling of: (i) Wheat (ii) Rice (iii) Pulses (iv) Oilseeds	K1	CO4
	8	Which oil extraction method operates at low temperature to preserve nutrients? (i) Solvent extraction (ii) Hydraulic press (iii) Cold press (iv) Expeller	K2	CO4
5	9	Pusa bin is an example of: (i) Traditional storage structure (ii) Improved storage structure (iii) Modern silo storage (iv) Bulk storage method	K1	CO5
	10	Fumigation in grain storage is primarily used to control: (i) Rodents (ii) Insects (iii) Microorganisms (iv) All of the above	K2	CO5

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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.	Explain the structure and composition of paddy with a neat diagram.	K2	CO1
		(OR)		
	11.b.	Describe the physico-chemical changes that occur during parboiling of rice and list its advantages		
2	12.a.	Explain the wheat milling process including cleaning, conditioning and milling stages	K3	CO2
		(OR)		
	12.b.	Discuss the rheological characteristics of wheat dough and the instruments used to measure them		
3	13.a.	Compare dry milling and wet milling processes of maize with their end products	K4	CO3
		(OR)		
	13.b.	Describe the milling technology of any two minor millets (foxtail millet and little millet)		
4	14.a.	Explain the CFTRI method of pulse milling and its advantages over traditional methods	K4	CO4
		(OR)		
	14.b.	Describe the solvent extraction method of oil from oilseeds with a flow chart		
5	15.a.	Explain the principle of controlled atmospheric storage and its benefits in grain preservation.	K5	CO5
		(OR)		
	15.b.	Discuss the preventive and curative measures (physical and chemical) to control insect infestation in stored grains		

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	Describe in detail the traditional and modern methods of rice milling.	K4	CO1
2	17	Classify different types of wheat and wheat flour. Explain the quality characteristics of wheat flour (moisture, ash, gluten, falling number).	K4	CO2
3	18	Explain the production technology of maize-based products: maize flour, starch, high fructose corn syrup and corn oil.	K5	CO3
4	19	Discuss the processing of soybean for the production of soy protein isolate, soy protein concentrate and soy chunks. Highlight the nutritional significance of these products.	K5	CO4
5	20	Compare traditional grain storage structures (Morai, Bhukari, Kothar) with improved storage structures (Pusa bin, brick and cement storage).	K6	CO5

Z-Z-Z END