

Enrollment No./Seat No.:

GUJARAT TECHNOLOGICAL UNIVERSITY
Bachelor of Engineering - SEMESTER - V EXAMINATION - WINTER 2025

Subject Code: 3155108

Date: 25-11-2025

Subject Name: Millets Processing and Value Addition

Time: 10:30 AM TO 01:00 PM

Total Marks: 70

Instructions

- 1. Attempt all questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**
- 4. Simple and non-programmable scientific calculators are allowed.**

	Marks
Q.1 (a) Define millets. Explain their classification and importance as nutri-cereals.	03
(b) Discuss nutritional and environmental benefits of millets in daily diet.	04
(c) Describe the types and varieties of millets grown in India. Discuss the difference between positive and neutral millets.	07
Q.2 (a) Explain the steps involved in millet cleaning and dehulling.	03
(b) Describe millet grading and sorting processes used in industry.	04
(c) A millet mill processes 500 kg of raw millet to produce 420 kg dehulled product. Calculate yield percentage and loss.	07
OR	
(c) Explain millet quality parameters and quality control procedures followed in processing units.	07
Q.3 (a) Define value addition. Give two examples of value-added millet products.	03
(b) Explain the difference between Ready-to-Eat RTE and Ready-to-Cook RTC millet products.	04
(c) Discuss the industrial uses and market trends of RTE millet products in India.	07
OR	
(a) What are the key steps in developing new millet-based food products?	03
(b) Discuss product development of millet-based bakery items cookies, bread, etc..	04
(c) Explain packaging and labeling considerations for value-added millet products.	07
Q.4 (a) Describe the essential machinery used in millet processing plants.	03
(b) Explain the marketing strategies for promoting millet-based products.	04
(c) Discuss the key aspects of establishing a millet processing business with reference to entrepreneurship and FPO linkages.	07
OR	
(a) Explain the concept of branding and pricing strategies for millet products.	03

- (b) Discuss the competitive advantage of millet-based businesses. 04
- (c) Describe the process flow and layout design for a small-scale millet flour unit. 07
- Q.5** (a) List government schemes promoting millet cultivation and processing. 03
- (b) Explain the role of POSHAN Mission and its link with millet-based nutrition. 04
- (c) Discuss recent government initiatives and events organized during the International Year of Millets 2023. 07

OR

- (a) Describe the role of FPOs and cooperatives in promoting millet entrepreneurship. 03
- (b) Explain any one subsidy or financial support scheme for millet startups. 04
- (c) Discuss the importance of nutritional security through millet promotion. 07
