

Enrollment No./Seat No.:

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

Subject Code: 3132605

Date: 22-12-2025

Subject Name: Latex Technology

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) Write in brief about Tapping process for NR latex.	03
(b) Draw the schematic diagram for mature trunk of Hevea Brasiliensis tree with labelling.	04
(c) Mention the methods for propagation of Hevea tree. explain about any one in detail with schematic representation.	07
Q.2 (a) Why Preservation is required for NR latex? Give reason.	03
(b) Write about use of Ammonia as preservative of NR latex. Mention its advantages and Disadvantages.	04
(c) What is short term and long term Preservation? Describe the process of Ammoniation with schematic diagram.	07
OR	
(c) Write about Secondary preservation system. Write the advantages and Disadvantages.	07
Q.3 (a) Write about requirement of NR latex Concentration.	03
(b) Explain the concept of Electrophoresis with diagram.	04
(c) Describe in detail about Centrifugation process for Concentration of NR latex with schematic diagram.	07
OR	
(a) Write about Concept of Creaming process for NR latex Concentration.	03
(b) Explain about Colloids. Write about its properties and basic types of Colloidal systems with examples.	04
(c) Describe the Evaporation process and for NR latex Concentration with schematic diagram. Write its limitations.	07
Q.4 (a) Give function of Crosslinking agents for Latex compounding. Write examples.	03
(b) Write about significance of Dispersing agents and Emulsifiers for latex compounding.	04
(c) What is Latex Gelation? Write in detail about Acid Gelation with examples.	07

OR

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| | (a) Mention the importance of Activators and Accelerators for Latex compounding. Write examples for both. | 03 |
| | (b) Write about significance of Surface Active agents. Give its classification. | 04 |
| | (c) Describe the concept of Heat Sensitized gelation. Explain with example. | 07 |
| Q.5 | (a) Write about causes of Latex Allergy. | 03 |
| | (b) Mention major types of Latex Allergies and their characteristics. | 04 |
| | (c) Describe in detail about working mechanism of Ball mill with schematic diagram. Write about its important parameters. | 07 |

OR

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| | (a) Write about remedies of latex Allergies. | 03 |
| | (b) Write about symptoms and diagnosis of latex allergy. | 04 |
| | (c) Mention basic types of Emulsifiers and its function. Draw the schematic diagram for any one Emulsifier and explain its working mechanism. | 07 |
