

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-VI (NEW) EXAMINATION – WINTER 2023****Subject Code:3162904****Date:05-12-2023****Subject Name:Technical Textiles****Time:02:30 PM TO 05:00 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) State the definition of technical textiles.	03
	(b) Which are the different types of protective textiles?	04
	(c) Discuss the applications of nanotechnology in technical textiles.	07
Q.2	(a) How is antiviral finish obtained in technical textiles?	03
	(b) What are the applications of composites in technical textiles?	04
	(c) Discuss about the woven fabrics used in technical applications.	07
	OR	
	(c) Write in detail about the knitted fabrics used in technical applications.	07
Q.3	(a) What are nonwovens?	03
	(b) Write briefly about the properties of the nonwoven structures.	04
	(c) Discuss the advances in the web formation during nonwoven manufacturing.	07
	OR	
Q.3	(a) State the applications of nonwovens in technical textiles.	03
	(b) Write briefly about the finishing of nonwoven technical textiles.	04
	(c) What are the recent developments in bonding process of nonwoven manufacturing process?	07
Q.4	(a) Which are the specialty fibres used in medical textiles?	03
	(b) Write briefly about leno weaving in technical applications.	04
	(c) Discuss in detail about buildtech and geotech.	07
	OR	
Q.4	(a) Give the classification of medical textiles.	03
	(b) Write about coating and lamination of technical textiles.	04
	(c) Discuss in detail about agrotech and packtech.	07
Q.5	(a) State the applications of indutech?	03
	(b) Write briefly about mobiltech.	04
	(c) Discuss the important properties and applications of protective textiles.	07
	OR	
Q.5	(a) Write in brief about clothtech.	03
	(b) Discuss the applications of technical textiles for environmental protection.	04
	(c) Explain the essential properties and write about the applications of medical textiles.	07
