

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI(NEW) – EXAMINATION – SUMMER 2019

Subject Code:2162904

Date:14/05/2019

Subject Name:Technical Textile-I

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.

	MARKS
Q.1 (a) Define technical textiles.	03
(b) Discuss in brief about the various fibres used for manufacturing technical textiles.	04
(c) Write a short note on textile-reinforced composite materials.	07
Q.2 (a) What are nonwovens?	03
(b) Compare coating and lamination.	04
(c) Write a short note on filter fabrics.	07
OR	
(c) Compare parallel laying and cross laying.	07
Q.3 (a) Write briefly about the wet laying process.	03
(b) What are the problems experienced in cross laying and state the measures taken to solve these problems.	04
(c) Explain the working of carding machine used for manufacturing of nonwoven fabrics.	07
OR	
Q.3 (a) Define the following terms : Intensity of Carding and Delay factor.	03
(b) Air laid fabrics are randomly laid fabrics. State and explain if the statement is true or false.	04
(c) Explain the concept of mechanical bonding.	07
Q.4 (a) What is geotextile?	03
(b) Write briefly about the technical fabric structure woven fabrics.	04
(c) Compare thermal bonding and chemical bonding.	07
OR	
Q.4 (a) State some of the important properties of carbon fibre and explain the method of production of these fibres.	03
(b) Write briefly about the technical fabric structure knitted fabrics.	04
(c) Compare spunbond with melt blown fabric. With the help of neat diagram, explain the method of production of spunbond fabric in detail.	07
Q.5 (a) State the names of various methods of coating.	03
(b) Discuss briefly about the glass fibre.	04
(c) Write a short note on wet processing of technical textiles.	07
OR	
Q.5 (a) What is medical textile?	03
(b) Discuss briefly about the coating materials used for technical textiles.	04
(c) Write a short note on finishing of technical textiles.	07
