Seat No.:	Enrolment No.
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## **GUJARAT TECHNOLOGICAL UNIVERSITY**

BE - SEMESTER-V • EXAMINATION - WINTER 2013

•		Code: 152804 Date: 02-12-2013	
•	e: 10	Name: Chemical and Physical Analysis of Textiles 0.30 am - 01.00 pm Total Marks: 70	
	1. 2.	Attempt all questions.  Make suitable assumptions wherever necessary.  Figures to the right indicate full marks.	
Q.1	(a)	With the help of neat sketch, explain briefly the Wet & Dry Bulb	07
	<b>(b)</b>	hygrometer. With the help of neat sketch, explain briefly the Wrap Reel. Also state its function.	07
Q.2	(a)	What do you mean by moisture regain. With the help of neat sketches, explain how conditioning oven is used to measure moisture regain in textiles.	07
	<b>(b)</b>	Explain how, chemical & mechanical methods are used for determination of the blend content of textiles.	07
	<i>a</i> >	OR	0.5
	<b>(b)</b>	Discuss how the microscopic methods are used for analysis of fibre identification.	07
Q.3	(a) (b)	Explain how, yarn unevenness is assessed by visual examination.  Write a brief note on "Measurement of Crease recovery".  OR	07 07
Q.3	(a)	Briefly describe the rock bank twist tester.	07
	<b>(b)</b>	With the help of neat sketches, explain the air permeability tester.	<b>07</b>
Q.4	(a) (b)	With the help of neat sketch, explain briefly the Tearing strength Tester. With the help of neat sketch, explain briefly the Drapemeter.  OR	07 07
Q.4	(a)	Define the following terms:  i. Breaking Load & Tenacity  ii. Tex & Denier	07
	<b>(b)</b>	Write a brief note on "Measurement of Maturity of cotton fibres".	<b>07</b>
Q.5	(a)	Explain in detail any one method used in determination of molecular weight of textile fibres.	07
	<b>(b)</b>	Discuss in detail the burning & chemical behavior of any three synthetic fibres.	07
o -		OR	. –
Q.5	(a)	Describe in detail, how the identification of textile fibres is done using different chemical reagents.	07
	<b>(b)</b>	Define saponification No.? Describe its determination in detail.	<b>07</b>

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