Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V (NEW) - EXAMINATION - SUMMER 2016

	•	ct Code:2152803 Date:06/05/20	016
	•	ct Name: Analytical Textile Chemistry -I	
		02:30 PM to 05:00 PM Total Marks:	70
Ι	nstruc		
		 Attempt all questions. Make suitable assumptions wherever necessary. 	
		3. Figures to the right indicate full marks.	
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Q.1	(a)	Answer the following OBJECTIVE questions:	07
	i.	Name the two popular indicators used for acid-alkali titration.	
	ii.	Differentiate between iodimetry and iodometry.	
	iii.	, and the state of	
		What does the iodine number indicate?	
		What does the flash point indicate?	
		What is meant by bomb washings?	
		Nesseler tubes are used for analysis. Give the test method for determination of silica content in water.	07
Q.2	(b) (a)	Enlist various constituents in water which are harmful to textile processing.	07
Q.2	(a)	Discuss detrimental effect of any two constituents on wet processing of textiles.	U7
	(b)	Discuss in detail about various types of hardness and its relationship with	07
	()	alkalinity in water.	
		OR	
	(b)	Describe the method for determination of total hardness in water.	07
Q.3	(a)	Name the tests carried out to perform analysis of lubricant oil. Describe the	09
~	(44)	methods for finding degree of instauration in oil and its flow properties.	0,5
	(b)	Discuss the method to determine yield value of grease sample.	05
	` ,	OR	
Q.3	(a)	Give the calculations for determination of calorific value of coal by using bomb	08
		calorimeter with neat sketch.	
	(b)	Differentiate between proximate and ultimate analysis of coal. Describe	06
		proximate analysis in detail.	
Q.4	(a)	Brief about the principle and working technique of paper chromatography and	09
	(1.)	thin layer chromatography.	0.5
	(b)	Explain the principle of spectroscopy and name the various types of it. OR	05
Q.4	(a)	Describe in detail the application of conductometry in field of analytical textile	07
Ų.T	(a)	chemistry.	07
	(b)	Discuss the principle and applications of potentiometry in analytical textile	07
	()	chemistry.	
Q.5	(a)	Discuss the concept of BOD with method for its determination with various	08
		chemical reactions taking place during the process of biodegradation.	
	(b)	Name various viscometers. Discuss the working of viscometer which gives	06
		direct and absolute measure of viscosity.	
o -		OR	
Q.5	(a)	Describe the principle and method for determination of COD of an effluent	06
	(1.)	sample.	00
	(b)	Give the test methods for determination of purity of Hydros and Hypochlorite.	08
