Seat No.: Enrolment No.	Э.
-------------------------	----

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

BE – SEMESTER – V (NEW) EXAMINATION – WINTER 2015

Subject Code: 2152806 Subject Name: Chemistry and application of Textile A		t Code: 2152806 Date:08/12/ 201 t Name: Chemistry and application of Textile Auxiliaries	Date:08/12/ 2015	
Ti	me: 1	10:30am to 1:00pm Total Marks: 7	70	
Q.1	(a) (b)	Give an overview on various aspects of textile auxiliaries. State the criteria for selection of surface active agents.	07 03	
	(c)	Explain Kraft point.	04	
Q.2	(a)	Explain various techno-physical aspects of surface tension ( $\gamma$ ). Derive the dimensions of surface tension.	07	
	<b>(b)</b>	Write a note on auxiliaries used in mercerization.	07	
	(b)	OR Discuss the chemistry and applications of phosphate esters.	07	
	<b>(b)</b>	Discuss the chemistry and applications of phosphate esters.	U/	
Q.3	(a) (b)	Write a short note on: Amphoteric Surfactants. Write a short note on defoaming agents.	07 07	
Q.3		<b>OR</b> Discuss elaborately the concept of angle of contact and its importance in wetting of fabric and removal of waxes.	14	
Q.4	(a) (b)	Discuss the chemistry and applications of silicone surfactants.  Explain how the washing fastness of dyes can be improved by after treatment means.	07 07	
Q.4		OR  Describe the chemistry, properties and application of Non-ionic surfactants.	14	
Q.5	(a)	Write short notes on: Dispersion and Solubilization.	07	
<b>~</b>	(b)	Describe with suitable examples the application leveling agents.	07	
Q.5		<b>OR</b> Give the classification of anionic surfactants. Explain the manufacturing of sodium	14	
		dodecyl benzene sulphonate.		

\*\*\*\*\*