GUJARAT TECHNOLOGICAL UNIVERSITY

BE- VIth SEMESTER-EXAMINATION – MAY- 2012

Subject code: 161405 Subject Name: Milk and Milk Products Technology Time: 10:30 am – 01:00 pm Total M Instructions:			/05/2012 (arks: 70	
Q.1	(a)	State the advantages of followings: i) Homogenized milk ii) Sterilized milk iii) Standardized milk iv) Toned milk	08	
	(b)	Write short note on following: (i) NDDB (ii) "Anand Pattern" of co-operative structure	06	
Q.2	(a)	Define following terms: (1)WPNI (2) Milk (3) Cryoglobulins	03	
	(b)	Write in brief about various physico-chemical properties of milk.	04	
	(c)	Which are the various forms of processed cheese? Write flow diagram for preparation of cheese used as raw material for preparation of processed cheese manufacturing with technical detail. OR	07	
	(c)	Describe shortly the process for preparation of ice -cream.	07	
Q.3	(a)	Write about various platform tests with their significance.	07	
	(b)	Define Neutralization of cream. Discuss the objective and procedure for neutralization of cream during butter preparation. OR	07	
Q.3	(a)	List various powder recovery system and Draw line diagram of spray drier indicating various parts and drying parameters.	07	
	(b)	Write short notes on: i) Ripening of cream ii) Defects in butter	07	
Q.4	(a)	Explain various physical and functional properties of dried product.	07	
	(b)	Write about various types of khoa. List various changes occurring during manufacture of khoa. OR	07	
Q.4	(a)		07	
Q.4	(b)	Explain in detail Malted milk food with flow diagram for preparation.	07	

07 Q.5 (a) Enlist the different types of vanilla and chocolate flavorings and describe the process for extraction of vanilla flavour from vanilla beans. **(b)** State the PFA specifications with definition of following products: **07** (i) Ice-cream ii) Butter OR **Q.5** (a) What is sugar ratio? Give formula for its relation with % sugar. Fresh **07** milk contains 13.0 % Total Milk Solids(TMS) and Sweetened condensed milk contains 31.0 % TMS. How much sugar should be added in milk to keep 43.1 % sugar in SCM. Explain Forced crystallization in SCM. **(b)** Discuss the following steps in preparation of butter: **07** i) Receiving of milk or cream ii) Churning of cream
