Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-IV EXAMINATION – WINTER 2015

Sul	ject	Code: 141401 Date:19/12/2015	
Tin	-	Name: Food Nutrition and Biochemistry 2:30pm to 05:00pm Total Marks: 70	
11150	1. 2.		
Q.1	(a)	Do as directed. i) Define Nutrition. ii) State the uses of Recommended Daily Allowances. iii) What are deficiency symptoms of cynacobalamin?. iv) Define Digestion of food. v) What do you understand by Net Protein Utilization? vi) Introduce briefly omega-3 fatty acid. vii)Enlist food sources for riboflavin.	07
	(b) (c)	Draw a well labeled Nutrient Wheel along with different nutrients. What are functions of protein in human nutrition?	04 03
Q.2	(a) (b)	"Minerals are vital nutrient for human health". Justify. Explain the functions of carbohydrate in human nutrition. OR	07 07
	(b)	Derive Michaelis Menten equation for enzyme kinetics. Explain competitive and non-competitive inhibition.	07
Q.3	(a) (b) (c)	Explain the effect of heat processing on the carbohydrate. What are deficiency symptoms and excessive consumption consequences of vitamin A? State the importance of amylase and gastric juice in food digestion. OR	07 04 03
Q.3	(a) (b) (c)	Discuss the digestion and absorption of protein in human. Differentiate between soluble and insoluble fiber. Briefly explain the factors affecting human nutrition.	07 04 03
Q.4	(a)	Discuss the classification of food on the basis of physiological function in human nutrition.	07
	(b)	Explain the role of enzymes in food processing with suitable examples. OR	07
Q.4	(a)	Define mineral. Discuss the classification of mineral on the basis of requirement with the suitable examples.	07
	(b)	Explain the functions of fat in human body.	07
Q.5	(a)	What are advantages and limitations of vegetarian diet? What are remedies to	07

	(b)	overcome the limitations of vegetarian diet? Calculate the calorific value of food product weighing 250 g and having the following composition.	04
		Carbohydrate – 70%, Protein – 12%, Fat – 11%	
	(c)	Calculate BMI for the person whose weight and height are 64 kg and 170 cm respectively. Comment on the BMI grade.	03
		OR	
Q.5	(a)	Define balanced diet. Discuss the classification of balanced diet on the basis of cost.	07
	(b)	What are advantages of food fortification? State the characteristics of food vehicle.	04
	(c)	Enlist any three cofactors and their enzymes along with type of reactions they carry out.	03
