Seat No.:	Enrolment No.
Seat INO	Ellioinient No.

GUJARAT TECHNOLOGICAL UNIVERSITY

B. E. - SEMESTER – III • EXAMINATION – WINTER 2012

Su	ıbject	t code: 131402 Date: 10-01-2013	
		t Name: Basic Food Microbiology 10.30 am – 01.00 pm Total Marks: 70	
		ctions:	
	1. 2. 3.	J.	
Q.1	(a) (b)	Write major characteristics of bacteria & protozoa groups of microbes. List various structures external and internal to the cell wall and write major function of each.	07 07
Q.2	(a)	Write about size and various shapes of bacterial cell and mention about arrangement of different shapes.	07
	(b)	Define terms: (i) Resolution power (ii) Generation time (iii) 'D-value' (iv) Stain (v) Mordant (vi) Growth rate (vii) Total magnification. OR	07
	(b)	Explain gram's staining using cell wall structure of gram +ve and gram -ve bacteria.	07
Q.3	(a)	Discuss various technique used for isolation and purification for pure culture of microorganism.	07
	(b)	Write short note on control of growth of microorganisms by physical agents. OR	07
Q.3	(a) (b)	Enlist various components and its functions used in light microscope. List major groups of chemical antimicrobial agents and write characteristics of an ideal antimicrobial chemical agent.	07 07
Q.4	(a)	Classify and discuss various staining techniques and its usefulness in microorganism observation.	07
	(b)	Discuss various factors affecting growth of microorganism in food. OR	07
Q.4	(a)	What are methods for measurement of microbial population in culture? Explain any one.	07
	(b)	What is nitrogen fixation? Discuss role of soil microorganism and their interaction.	07
Q.5	(a) (c)	Differentiate between prokaryotic and Eukaryotic microbes. Explain growth of bacteria using growth curve. OR	07 07
Q.5	(a)	Give account on the various mechanism of genetic transfer among bacteria for recombination.	07
	(b)	Enlist seven full name of microorganism with its habitants.	07
