Term End Examination-2014
Ph.D. in Dairy Science and Technology
RDR-010: Dairy and Food Microbiology

Time: Three Hours **MM: 100**

Note: Attempt any five questions. All questions carry equal marks

1 (a)	Give the importance of microorganism in dairy and other food products with the help of appropriate examples.	10
1 (b)	Describe various methods used for measurement of bacterial populations.	10
2.	Describe various emerging processing and preservation technologies for milk and dairy products.	20
3 (a)	Enumerate important dairy products and give typical types of spoilage microorganisms and microbial activity associated with them.	10
3 (b)	Reflect on microbiological quality of important indigenous dairy products.	10
4 (a)	Explain various factors and mechanism of action influencing functionality of probiotic microorganisms?	10
4 (b)	Explain various safety assessment protocols for probiotic cultures used in fermented dairy products.	10
5 (a)	Describe various methods of starter culture preservation.	10
5 (b)	Explain the potential of various antimicrobial compounds produced by Lactic Acid Bacteria?	10
6 (a)	Explain the new approaches in accelerated ripening of cheese and their applicability for cheeses made from buffalo milk.	10
6 (b)	Give the reasons for emergence of new food borne diseases?	10
7 (a)	What are current concepts in food quality and safety management? Develop an effective HACCP plan based on rapid microbiological methods	10
7 (b)	What are various antimicrobial compounds produced by Lactic Acid Bacteria?	10