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**POST GRADUATE DIPLOMA IN FOOD SAFETY
AND QUALITY MANAGEMENT (PGDFSQM)**

Term-End Examination

June, 2011

MVPI-001 : FOOD MICROBIOLOGY

Time : 2 hours

Maximum Marks : 50

Note : *Attempt any 5 questions. All questions carry equal marks.*

1. Give the principle briefly. **5x2=10**
 - (a) Negative staining.
 - (b) MBR Test.
 - (c) Spiral Plate Count.
 - (d) Polymerase chain reaction.
 - (e) Endospore staining.

2. Explain the following very briefly. **5x2=10**
 - (a) Food Intoxications.
 - (b) Food Contamination.
 - (c) Viruses.
 - (d) Fermented foods.
 - (e) Emerging Food Borne diseases.

3. (a) What do you know about Standard Plate Count Method of enumeration of bacteria ? 5
- (b) What are the various microbes associated with food ? 5
4. Explain the deteriorative effects of micro organisms. 10
5. (a) Micro organism capable of causing disease is called _____. **10x1=10**
- (b) _____ is a measure of acidity or alkalinity of a solution.
- (c) Dormant state of rod shaped bacteria is called _____.
- (d) Minimum a_w for molds is _____.
- (e) Microbes growing in high level of salt are _____.
- (f) Use of antimicrobial metabolites in place of preservative is _____.
- (g) The study of viruses is called _____.
- (h) Infection that causes inflammation of liver is _____.
- (i) _____ are used in making of bread and wine.
- (j) Organisms growing at low temperature are _____.

6. Describe the extrinsic factors responsible for spoilage. 10
7. (a) Name any two emerging food borne diseases and describe them briefly 4
(b) What is the normal microflora of milk ? 3
(c) Draw a typical bacterial growth curve and label various parts (No description). 3
8. Write short notes on :
- (a) Probiotics and Prebiotics. 5
(b) MPN method. 5
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