

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

Term-End Examination

December, 2016

MVPI-001 : FOOD MICROBIOLOGY

Time : 2 hours

Maximum Marks : 50

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

1. Match the following : **1x10=10**
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|-----------------------|----------------------------------|
| (a) Candida | (i) Emerging food borne pathogen |
| (b) Psychotrophs | (ii) Mold |
| (c) Ropiness of bread | (iii) Aspergillus |
| (d) Green rot of eggs | (iv) Reduction test |
| (e) Alternaria | (v) Colon bacteria |
| (f) Viroid | (vi) Yeast |
| (g) Vitamin K | (vii) Cold-tolerant bacteria |
| (h) MBRT | (viii) Pseudomonas fluorescence |
| (i) E.coli. 0157 : H7 | (ix) Single Stranded RNA |
| (j) Ochratoxin | (x) Bacillus subtilis |
2. Define the following : **2x5=10**
- Food bioprocessing
 - Bacteriocins
 - Synbiotic
 - Saccharomyces
 - MPN

3. State the significance of the following in food safety : (**any two**) 5x2=10
- (a) Biochemical Tests
LST - MUG method of E.coli detection
 - (b) Polymerase chain reaction
 - (c) Biochemical Kits
4. (a) Explain the need and scope of food microbiology. 4
- (b) List common molds and yeast involved in food spoilage with diagrams. 3+3=6
5. (a) Classify foods on the basis of their perishability with examples. 4
- (b) Explain the role of extrinsic parameters affecting microbial growth. 6
6. (a) What are the various physical and chemical changes in foods due to growth of micro-organisms ? 6
- (b) Explain types of microbial spoilage associated with meat and fish products. 4
7. Write short notes on **any four** : 2½x4=10
- (a) CAMP test for Listeria
 - (b) Immuno - Magnetic Separation
 - (c) Salmonellosis and Cholera
 - (d) Probiotics
 - (e) Biosensor
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