

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

02455 **Term-End Examination**
June, 2019

MVPI-001 : FOOD MICROBIOLOGY

Time : 2 hours

Maximum Marks : 50

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

1. Match the following :

10×1=10

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|----------------------------------|---|
| (a) Miso | i. Clostridium |
| (b) Green rot in eggs | ii. <i>Bacillus subtilis</i> |
| (c) Parasitic round- worm | iii. Indole test |
| (d) Anaerobic spore former | iv. Meat spoilage |
| (e) Emerging food-borne pathogen | v. Geotrichum |
| (f) Dairy mold | vi. Reductase test |
| (g) MBRT | vii. Pseudomonas |
| (h) Ropiness of bread | viii. Oriental fermented food |
| (i) Controlled atmosphere | ix. <i>E.coli</i> O ₁₅₇ : H ₇ |
| (j) Kovac's reagent | x. <i>Trichinella spiralis</i> |

2. Define the following : 5×2=10
- (a) Water activity
 - (b) Microbial biomass
 - (c) Neurotoxins
 - (d) Symbiotic
 - (e) Thermophiles
3. State the significance of the following in food safety (any *two*) : 2×5=10
- (a) Biosensors
 - (b) Membrane filter technique
 - (c) PCR
4. (a) Explain the role of extrinsic parameters affecting microbial growth in foods.
- (b) Enlist various methods of food preservation. 6+4=10
5. (a) Give the procedure for enumeration of molds/yeast in a food sample.
- (b) What is IMViC Test ? Explain its significance in food safety. 5+5=10
6. (a) Explain the need and scope of food microbiology.
- (b) Give the procedure for the detection of *Salmonella* in a food sample. 4+6=10

7. Write short notes on any *four* of the following :

$$4 \times 2 \frac{1}{2} = 10$$

- (a) Bacterial Growth Curve
 - (b) Catalase Test
 - (c) Economic Importance of Yeast
 - (d) Shigellosis
 - (e) Ropiness of Bread
 - (f) Hepatitis A
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