No. of Printed Pages : 3 **MFT-002**

POST GRADUATE DIPLOMA IN FOOD SCIENCE AND TECHNOLOGY (PGDFT)

Term-End Examination

December, 2016

00432

MFT-002 : FOOD MICROBIOLOGY

Time : 3 hours *Maximum Marks : 70*

Note : *Attempt **seven** questions. Question no. **1** is **compulsory**.*

1. Fill in the blanks using suitable words. **10x1=10**

(a) In Greek 'MIKROS' means _____.

(b) The baker's yeast belong to the group _____.

(c) Prions cause _____ disease in cattle.

(d) _____ bacteria can kill/inhibit pathogens.

(e) Viruses that infect bacteria are called _____.

(f) _____ is a system where critical points safeguard the food.

(g) The study of fungi is _____.

(h) _____ are resistant bodies produced by bacteria.

(i) The starter cultures primarily produce _____.

(j) In _____ cultures are frozen at −196°C.

2. Define the following terms : **10x1=10**

(a) Food contamination
(b) Spoilage microorganisms
(c) Curdling
(d) Pasteurization
(e) Proteolysis
(f) Lipolysis
(g) Osmophile
(h) Psychrophile
(i) Xerophile
(j) Saprophyte

3. (a) What do you understand by probiotic Foods ? Briefly discuss. **2½**

(b) What are the emerging food borne pathogens ? **2½**

(c) Comment on possible sources of contamination in cereals. **2½**

(d) How does milk get curdled during spoilage ? **2½**

4. Answer the following with suitable examples. **2x5=10**

(a) How does spoilage of low acid canned foods takes place ?

(b) Comment on the technique of 'Standard Plate Count' to estimate bacteria.

5. Give the Principle of following : **5x2=10**

(a) SPC
(b) MBRT
(c) MPN method
(d) Negative Staining
(e) Spiral Plate Count method

6. Match the following : 10

	A		B
(a)	EMB Agar	(i)	Dye reduction Test
(b)	Broth	(ii)	Spiral plate court
(c)	Peptone	(iii)	Differential media
(d)	Counting grid	(iv)	Liquid media
(e)	Heat resistant	(v)	Solid media
(f)	Tartaric acid	(vi)	Organic nitrogen
(g)	Slants	(vii)	PDA Agar
(h)	MBRT	(viii)	Maintenance of culture
(i)	Nigrosin	(ix)	Endospore
(j)	Agar	(x)	Acid dye

7. Describe following terms in relation to spoilage. 5x2=10
   (a) Moldy cheese
   (b) Lipolysis
   (c) Ropiness
   (d) Bloating of cans
   (e) Button formation

8. Write short notes on : 4x2½=10
   (a) Biochemical kits
   (b) Immunological methods
   (c) Polymerase Chain Reaction (PCR)
   (d) Flow cytometry