Printed Pages: EF-401/EFT-401

(Following Paper ID and Roll No. to be filled in your Answer Books)											
PAPER ID:	Roll No.										

B.TECH.

Theory Examination (Semester-IV) 2015-16 BASIC FOOD MICROBIOLOGY

Time: 3 Hours Max. Marks: 100

Note: Answer all questions as per directions given.

SECTION A

1. Attempt all the parts. Write answer of each part in short. $(2\times10=20)$

- a) Differentiate between Thermophiles and Mesophiles
- b) Differentiate between Halophilic and Osmophilic Bcateria
- c) Differentiate between Differential Media & Selective Media
- d) Differentiate between Proteolytic and Lipolytic Bacteria
- e) Differentiate between Springer and Breather in Canned Foods
- f) Differentiate between Food Spoilage and Food Poisioning
- g) Differentiate between Cleaning and Sanitizing?
- h) Differentiate between Gram Positive and Gram Negative Bacteria
- i) Differentiate between Lactics and Acetics
- j) Differentiate between Sterilzation and Asepsis.

SECTION-B

2. Attempt any 5 questions

 $(5 \times 10 = 50)$

- a) Describe the Morphological Characteristics of Molds. Also list any five molds of industrial importance in foods.
- b) Describe the important Morphological characteristics of Bacteria? Explain any two techniques used for quantitative measurement of bacterial growth in foods.
- c) Discuss the general causes of food spoilage? How can foods be classified on the basis of ease of spoilage. Support your answer with proper examples.
- d) Explain the concept and principles of HACCP in ensuring Food Safety.
- e) What do you understand by the term 'Food Borne Diseases'? List the causative agents and Clinical syndromes for any five such diseases.
- f) Write a Technical Note on Preservation of Foods by Sugar and salt.
- g) Explain in detail the significance of Low Temperature as a means of preservation
- h) Draw and explain actual growth curve for bacterial population?

SECTION-C

Attempt any two questions.

 $(15 \times 2 = 30)$

- 3. What do you mean by Pure Cultures? Describe the process by which pure culture is isolated in laboratory?
- 4. Discuss the microbiology of raw milk. Enlist the common spoilage in Butter and Cream with their causative organisms? Also explain the methods for prevention of these spoilage.
- 5. Explain the term HYGINENE and SANITATION. How they are correlated with microorganism? Explain their significance in context to preservation of foods?

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