

[This question paper contains 3 printed pages.]

**Sr. No. of Question Paper : 6201**

**F-5**

**Your Roll No.....**

**Unique Paper Code : 2201507**

**Name of the Paper : Food Microbiology**

**Name of the Course : B.Tech. Food Technology**

**Semester : V**

**Duration : 3 Hours**

**Maximum Marks : 75**

**Instructions for Candidates**

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Question No. 1 is compulsory.
3. Attempt any five questions in all.
4. All questions carry equal marks.

1. Identify the organism:

- (i) Neurotoxin producer
- (ii) Cocci in bunches
- (iii) Pathogenic protozoan
- (iv) Gram positive cocci
- (v) Causes ropiness in bread
- (vi) Found in tetrads
- (vii) Food borne virus
- (viii) Gram negative coccobacillary rod
- (ix) Parasite in pork
- (x) Probiotic bacterium

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- (xi) Causative organism of BSE
- (xii) Starter used in yoghurt
- (xiii) Causative agent of whiskers
- (xiv) Butyric acid producer
- (xv) Acid fast microorganism (15)

2. Give the significance of following in food microbiology- (any three)

- (i) Dye Reduction Test
- (ii) Spores
- (iii) Freezing
- (iv) Gram Staining
- (v) Differential culture media (15)

3. (a) Draw the bacterial growth curve and list the various phases of growth (5)

- (b) Explain the role of OR potential and temperature in the bacterial growth. (10)

4. Differentiate between- (any three)

- (i) Food Intoxication vs. Food Infection
- (ii) SPC vs DEFT
- (iii) Homofermentation vs. Heterofermentation
- (iv) Prokaryotes vs. Eukaryotes
- (v) Z value vs F value (15)

5. (a) What is role of Lactic Acid Bacteria in the food fermentations? (5)
- (b) Give the method of manufacture along with the role of starter microorganisms involved (any **two**):
- (i) Vinegar
  - (ii) Sauerkraut
  - (iii) Tempeh (10)
6. (a) What are the sources of contamination of food. (5)
- (b) Explain the type of spoilage in the following (any **two**):
- (i) Milk
  - (ii) Canned Foods
  - (iii) Meat (10)
7. Write short notes on (any **three**):
- (i) Role of Asepsis in microbiological laboratory
  - (ii) Genetically Modified Foods
  - (iii) Emerging pathogens of Concern
  - (iv) Hurdle technology (15)