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Sl. No. of Q. Paper : 1006 G Your Roll No.....

Unique Paper Code : 253603

Name of the Course : B.Sc. (Hons.) Microbiology

Name of the Paper : Food and Dairy Microbiology

Semester : VI

Time : 3 Hours

Maximum Marks : 75

**Instruction for Candidates :**

- (a) Write your Roll No. on the top immediately on receipt of this question paper.
  - (b) Attempt any **five** questions.
  - (c) **All** questions carry equal marks.
1. (a) Explain the effects of pH and modified atmosphere on the growth and survival of microbes in foods. 10
- (b) Enlist the sources of contamination of meat. 3
- (c) Name two natural antimicrobial constituents present in fresh milk. 3×5=15

P.T.O.

2. Explain in brief the following spoilages of foods (any five) :  $3 \times 5 = 15$

- (i) Bacterial soft rot of vegetables
- (ii) Proteolysis of milk
- (iii) Ropiness of bread
- (iv) Flat sour spoilage of canned foods
- (v) Anaerobic spoilage of meat
- (vi) Rotting of eggs

3. (a) What is the mechanism of action of the following chemical preservatives used in foods ? Which foods are preserved using them ?  $3 \times 2 = 6$

- (i) Salt
- (ii) Benzoic acid

(b) Write a brief notes on the following methods (any three) of food preservation.  $3 \times 3 = 9$

- (i) Irradiation
- (ii) Spray Drying
- (iii) Appertization
- (iv) High Hydrostatic Pressure

4. (a) Define probiotics. What are the health benefits of consuming probiotics ? Name three microorganisms which are being used as probiotics. 6

(b) Write short notes on the following fermented food products.  $3 \times 3 = 9$

- (i) Yogurt
- (ii) Soy sauce
- (iii) Cheese

5. (a) What is the difference between food infection and food intoxication ? 3

(b) Describe the following food borne diseases by mentioning their causative agents, foods involved, symptoms and preventive measures.  $6 \times 2 = 12$

- (i) Botulism
- ii) Salmonellosis

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6. (a) In the absence of a source of drinking water supply in an area, the residents had to use groundwater for drinking. As a microbiologist, how will you determine the potability of this water? 12
- (b) Define HACCP and write in brief its significance in food industry. 3