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**FNS 405**

**First Semester M.Sc. Degree (CBCS) Examination, December 2018**  
**FOOD SCIENCE AND NUTRITION**  
**Food Microbiology**

Time : 3 Hours

Max. Marks : 70

1. Write short notes on **any five** of the following (**not** exceeding **2** pages **each**) :  
**(5×3=15)**
  - a) Cell wall Peptidoglycan.
  - b) Rancidity.
  - c) Poultry.
  - d) Algal toxins.
  - e) Perishable food and shelf life.
  - f) Fungal spoilage.
  - g) Putrifaction.
  - h) Prebiotics.
  
2. Write explanatory notes on **any five** of the following (**not** exceeding **3** pages) :  
**(5×5=25)**
  - a) Microorganism in baking.
  - b) Contamination of fruits and vegetables.
  - c) Gram negative bacterial pathogens.
  - d) Probiotics and health benefits.
  - e) Fermented alcoholic beverages.
  - f) Milk handling and processing.
  - g) Microbial toxins in food spoilage.
  - h) Sporulating and non sporulating microbes.

P.T.O.



3. Answer **any three** of the following (**not** exceeding **5** pages **each**) : **(3×10=30)**

- a) Give an account on food borne pathogens and their infections.
  - b) Describe the physical and chemical factors influencing microbial growth.
  - c) Illustrate the microbial role in food fermentation and their importance.
  - d) Discuss on various types of traditional fermented foods in India.
  - e) Explain microbial mediated biochemical changes during food spoilage.
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