

**DEPARTMENT OF NUTRITION  
PRABHAT KUMAR COLLEGE, CONTAI  
Question Paper**

**B.Sc. Honours Examination 2020  
(Under CBCS Pattern)  
Semester - IV  
Subject: NUTRITION  
Paper: CC – 9 (T + P)  
(Food Microbiology)**

*Candidates are required to give their answer in their own words as far as practicable.  
Questions are of equal value*

Answer any **one question** [within 250 words] from each Part.

**PART – A: Food Microbiology (Theory)**

1. Write the principles of HACCP. Write the safety management at industrial level. What do you mean by “microbial standard”?
2. Write the beneficial effect of microorganisms of probiotics. Write the factors for probiotics.
3. Discuss about the spoilage of vegetables & fruits.
4. Discuss about the spoilage of Milk & milk products. Discuss canned foods spoilage.
5. Write the importance of fermented foods. Write the general characteristics of fungi & protozoa.
6. Discuss about physical & chemical environment of groundwater microbiology.
7. Write about water borne disease with their causative agent, disease symptoms & therapy.
8. Write down the nutritional requirement of microorganisms. What are the Intrinsic Factors affecting microbial growth?
9. What is Bacterial growth cycle? Diagrammatically describe the phases of Bacterial growth cycle. How temperatures affect bacterial growth?
10. What is culture media? Describe different types of culture media. What do you mean by Serial Dilution Method?

**PART – B: Food Microbiology (Practical)**

1. What is staining? What are the different types of staining process? Describe gram staining process.
2. Write down the principle of Methylene Blue Reduction test. Describe the procedure. Mention the selection criteria that are used while examining the milk.

3. Describe briefly the following equipments that are used in microbiology lab:
  - A. Autoclave
  - B. Microscope
  - C. Incubator
  - D. Colony counter
  - E. pH meter
  
4. What do you mean by fermented foods? How to test physical, chemical & nutritional properties of fermented foods?

**Answer script should be mailed to the following email address:**

[exam004h@gmail.com](mailto:exam004h@gmail.com)