

**PC-521**  
**M.Sc. Micro Biology (FOURTH SEMESTER)**  
**Examination- JUNE-2020**  
Compulsory/Optional  
Group -  
Paper-  
**FOOD MICROBIOLOGY**

**Time:- Three Hours ]**

**[Maximum Marks:80**

नोट : दोनो खण्डों से निर्देशानुसार उत्तर दीजिए। प्रश्नों के अंक उनके दाहिनी ओर अंकित हैं।

Note: Answer from Both the Section as Directed. The Figures in the right-hand margin indicated marks.

**Section A**

<b>1.</b>	<b>ATTEMPT THE FOLLOWING QUESTIONS</b>	<b>1x10</b>
(a)	How the hydrogen ion concentration or pH affects microbial growth in food.	
(b)	How the temperature affects microbial growth in food.	
(c)	Ethylene oxide used to preserve which type of food?	
(d)	Sulphur di-oxide used to preserve which type of food?	
(e)	Do Antibiotics are used to preserve the food?	
(f)	Which microbe is responsible for curd production from milk?	
(g)	Which microbe is responsible for cheese production from milk?	
(h)	Which microbe is responsible for dosa production from rice?	
(i)	Write on symptoms of <i>Staphylococcus aurous</i> food poisoning.	
(j)	Write on symptoms of <i>Clostridium botulinum</i> food poisoning?	

<b>2.</b>	<b>DEFINE THE FOLLOWING</b>	<b>2x5</b>
(a)	Contamination of food.	
(b)	Deep freezing of food.	
(c)	Canning.	
(d)	Food Toxicity.	
(e)	Preservative agents.	

**Section B**

<b>ANSWER THE FOLLOWING QUESTIONS</b>	<b>15x4</b>
<b>3.</b>	Write an essay on microbial spoilage of fruits. OR Write an essay on principles of spoilage of meat and egg.
<b>4.</b>	Write an essay on physical methods of food preservation. OR Write an essay on chemical methods of food preservation.
<b>5.</b>	Write an essay on traditional fermented food of India. OR Write an essay on various pro-biotic foods and their production methods.
<b>6.</b>	Write an essay on food intoxication and some organisms responsible for it. OR Write an essay on The Seven Principles of HACCP.