



**WEST BENGAL STATE UNIVERSITY**  
B.Sc. Honours 4th Semester Examination, 2020

**MCBACOR10T- MICROBIOLOGY (CC10)**

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.  
Candidates should answer in their own words and adhere to the word limit as practicable.*

**Answer Question No. 1 and any four from the rest**

1. Answer any **four** questions from the following: 2×4 = 8
- (a) Name two bacteria important in industrial food production.
  - (b) What is HTST method of Pasteurization?
  - (c) What is 'Shiga toxin'?
  - (d) Define 12D treatment.
  - (e) What do you mean by ripening of cheese?
  - (f) Name the microorganism(s) involved in producing acidophilus milk. Which microorganism causes green rot in food?
  - (g) What is Appertization?
  - (h) What is the 'Phosphatase test' of milk?
2. (a) What are the causative organisms of shigellosis? Name the foods that serve as a source of these microbes. Mention the symptoms associated with this disease. 2+1+2
- (b) Name two common microorganisms found as a natural flora in each: 2
- (i) Meat (ii) Fish
- (c) Name the causative organism of stormy fermentation of milk. 1
3. (a) What is ropiness of milk? Which microorganisms are responsible for causing ropiness? 2+2
- (b) Comment on processing of food by microwave. 2
- (c) Name two common antibiotics used in food preservation and the type of food they are used in. 2
4. (a) What are Probiotics? Mention the health benefits of probiotics. 2+1
- (b) What is blanching of foods? What is its importance? 2

- (c) What are indicator microorganisms used in quality control of food products? Cite two examples. 3
5. (a) Name two pathogenic bacteria responsible for food poisoning. 2  
(b) Describe two methods briefly which are exercised in food sanitation. 3  
(c) Schematically show the process of yogurt making. 3
6. (a) What are the intrinsic factors that affect the growth of microbes in food? 3  
(b) Why water activity of food products are important concern for food preservation? 2  
(c) Differentiate between slow freezing and quick freezing technique of food preservation. 3
7. (a) A writer in food technology magazine once suggested that refrigerators be filled with ultraviolet lights to reduce the level of microbial contamination in food. Would you support her view? 2  
(b) Why do you mean by single cell protein? 2  
(c) Describe briefly how sauerkraut is made. Mention the microbiological events involved in its making. 4
8. Write short notes on any *two*: 4×2=8  
(a) Acid and rennin curd  
(b) Aseptic packaging of food  
(c) Chemical methods of food preservation  
(d) HACCP.

**N.B. :** *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

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