



WEST BENGAL STATE UNIVERSITY
B.Sc. Honours 5th Semester Examination, 2020, held in 2021

FNTACOR12T-FOOD AND NUTRITION (CC12)

FOOD MICROBIOLOGY AND IMMUNOLOGY

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.
All symbols are of usual significance.*

Answer any four questions from the following

10×4 = 40

1. Differentiate between innate and acquired immunity. Explain your understanding about vaccines. 5+5=10
2. Explain your understanding about growth kinetics of bacteria. Write a note on factors affecting growth. 5+5=10
3. (a) What is a prion? What is prion disease? Is it having any relation with food consumption? Comment. 2+2+2
(b) What is generation time? 2
(c) Define water activity. 2
4. Differentiate between the following: 2½×4=10
(i) Probiotics and Prebiotics
(ii) Sterilization and Pasteurization
(iii) Food-borne infection and Food-borne intoxication
(iv) Antigen and Antibody.
5. (a) Explain your idea about food-borne diseases with any example of your choice. 5+3+2
(b) What is sauerkraut?
(c) Give one example each of facultative anaerobes and psychrotrophs.
6. Define the following: 2×5=10
(i) Immunoglobulin
(ii) Mycotoxins
(iii) Selective media
(iv) Cereals
(v) Tempeh.

7. Write a note on methods of media sterilization. What is the role of temperature in bacterial growth? What is the importance of serial dilution in microbial study? 4+3+3
8. Write short notes: 5+5=10
(i) ELISA
(ii) Meat spoilage.
9. (a) What is ropy milk? 3+2+3+2=10
(b) What is the composition of starter culture?
(c) Define enriched media with suitable example. Name two shellfish poisoning bacteria.

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.*

—x—