

Semester	: II(V Dean)	Academic Year	: 2023-2024
Course No.	: DM-202	Course Title	: Microbiology of fluid milk
Credits	: 1+1=2	Total Marks	: 50
Day & Date	: Wednesday, 14/08/2024	Time	: 2.00 hrs.

- Note :
- 1) All questions from **Section 'A'** are compulsory.
 - 2) Solve **Any Three** questions from **Section 'B'**.
 - 3) Draw neat and well labelled diagram wherever necessary.

SECTION – 'A'

Q. 1 A) Define the following. (05)

- i) Biofilm
- ii) Zoonotic disease
- iii) Lactoferrin
- iv) Infection
- v) Mastitis milk

B) Match the pairs. (05)

Column 'A'

- i) LP system
- ii) Pre-formed toxins
- iii) IgA
- iv) UHT
- v) Typhoid

Column 'B'

- a) *Salmonella typhi*
- b) Passive immunity
- c) Cold sterilization
- d) In-toxication
- e) Sterilization

Q. 2 A) State whether True or False. If false, rewrite the statement after making necessary corrections. (05)

- i) Mesophilic bacteria can grow in the range of 0 to 7°C or below.
- ii) Putrifaction is the process of breakdown of milk protein.
- iii) Most streptococci are Oxidase and Catalase negative.
- iv) Tuberculosis is a Zoonotic disease.
- v) EMB agar is the specific media for *E.coli* growth.

B) Choose the most appropriate answer from the options given below. (05)

- i) The most frequent group of bacteria found in milk are
 - a) *Streptococci*
 - b) Micrococci
 - c) *Bacillus*
 - d) *Corynebacterium*
- ii) Which of the following bacteria is Mesophilic?
 - a) *Bacillus*
 - b) *E.coli*
 - c) *Pseudomonas*
 - d) *Lactobacillus acidophilus*
- iii) The bacteria associated with the Typhoid fever
 - a) *Lactobacillus*
 - b) *Streptococcus*
 - c) *Bacillus*
 - d) *Salmonella*
- iv) Which of the following test is used to assess the microbial quality of milk?
 - a) MBRT Test
 - b) Strip cup test
 - c) CAMP Test
 - d) Simple Staining
- v) Strip cup test is used for
 - a) Mastitis
 - b) Typhoid
 - c) Brucellosis
 - d) FMD disease

(P.T.O.)

SECTION –‘B’

- Q. 3 A) Write down the various Antimicrobial systems in aseptically drawn milk with their significance. (05)
B) Discuss the various microbial contaminants in raw milk and their sources. (05)
- Q. 4 A) Define Zoonosis. Enlist the various zoonotic diseases associated with raw milk. (05)
B) Define Psychotrophs. What is the significance of Psychotrophs in dairy industry? (05)
- Q. 5 A) Immunoglobulin in milk. (03)
B) Difference between Infection and Toxi-infection. (03)
C) Discuss abnormal flavor defects in milk and their control measures. (04)
- Q. 6 A) Enlist various microbial spoilages of milk and discuss anyone in detail. (03)
B) Write down the importance of thermotolerant organism in UHT milk. (03)
C) Write down the significance of *S. aureus* in dairy industry. (04)
- Q. 7 What is Mastitis milk? Classify Mastitis according to symptom. Write down the various test for detection of mastitic milk and its public health significance. (10)
