

**MAHARASHTRA ANIMAL AND FISHERY SCIENCES UNIVERSITY, NAGPUR**  
**SEMESTER END THEORY EXAMINATION, B.Tech. (D.T.)**

Semester	: V (V Dean)	Academic Year	: 2023-2024
Course No.	: DM-505	Course Title	: Quality and Safety Monitoring in Dairy Industry
Credits	: 2 + 1 = 3	Total Marks	: 50
Day & Date	: Friday, 10/05/2024	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 labeled diagram wherever necessary.

**SECTION – 'A'**

Q. 1 A) Choose the most appropriate answer from the options given below. (05)

- i) CCP stands for .....
  - a) Critical Control Point
  - b) Certified and Controlled Product
  - c) Critically Changed Point
  - d) None of these
- ii) Aflatoxins are produced by .....
  - a) *Acenetobacter*
  - b) *Bacillus cereus*
  - c) *Aspergillus flavus*
  - d) All of these
- iii) The biochemical test used for the detection of *Staphylococcus aureus* is .....
  - a) Indole test
  - b) Coagulase test
  - c) Nitrate Reduction test
  - d) All of these
- iv) The hygiene of the food processing equipment can be detected by using .....
  - a) RODAC
  - b) Swab contact method
  - c) Agar slice method
  - d) All of these
- v) IMViC test are used for the diffenciation of *Ent. aerogenes* and .....
  - a) *Listeria monocytogens*
  - b) *E. coli*
  - c) *S. aureus*
  - d) All of these

B) Define the following terms. (05)

- i) Critical Limit
- ii) Hazard
- iii) Aflatoxin
- iv) Coliforms
- v) Quality Assurance

Q. 2 A) Answer the following in one or two lines. (05)

- i) Define: Quality Management System
- ii) What is capacity Test?
- iii) Enlist the step involved in microbiological risk analysis
- iv) Define: Biohazard
- v) Enlist microbial pathogens in concern with cheeses varieties.

(P.T.O.)

- B) Write down the full forms of the following. (05)
- i) BOD and COD
  - ii) ICMR
  - iii) RASFF
  - iv) MRL
  - v) WHO

**SECTION –‘B’**

- Q. 3 A) List the principles of Quality Management System and discuss in brief any four. (05)  
B) Describe in brief principles involved in HACCP system. (05)
- Q. 4 A) Discuss in brief the enumeration principle of *E. coli*. (05)  
B) Explain in brief different treatment of disposal of waste water and effluent. (05)
- Q. 5 A) Comment on microbiological quality of water. (03)  
B) Explain in brief microbiological risk analysis. (03)  
C) Discuss about personal hygiene in dairy industry. (04)
- Q. 6 A) Discuss the objectives of ICMSF. (03)  
B) Differentiate between Quality Control and Quality Assurance. (03)  
C) Discuss in short consumer awareness regarding microbiological quality and safety of dairy foods. (04)
- Q. 7 Discuss in detail rapid techniques used in microbial analysis in dairy industry. (10)

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