

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

Semester	: V (V Dean)	Academic Year	: 2023-2024
Course No.	: DC-506	Course Title	: Chemical Quality Assurance
Credits	: 1+1=2	Total Marks	: 50
Day & Date	: Tuesday, 30/04/2024	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) Define the following. (05)
- i) Soft water
 - ii) Critical control point
 - iii) Total quality management
 - iv) Antibiotics
 - v) Secondary standard reagent
- B) Write about the following in one or two line. (05)
- i) Hazard
 - ii) Quality assurance
 - iii) Legal standards
 - iv) ISO
 - v) Pesticide
- Q. 2 A) State whether True or False. If false, rewrite the statement after making necessary corrections in underlined words. (05)
- i) The number of moles of solute dissolved per litre of the solution is called normality.
 - ii) The S.S. consists of 12 parts of chromium and 6 parts of nickel.
 - iii) AGMARK standards for ghee and butter are mandatory.
 - iv) Permanent hardness is also known as carbonate hardness.
 - v) SML means the minimum permitted amount of a given substance released from a material or article into food or food simulants.
- B) Choose the most appropriate answer from the options given below. (05)
- i) Fat estimation of milk and milk products is done by.....
 - a) Gerber method
 - b) Rose-Gottlieb
 - c) Majonier method
 - d) All of these
 - ii) BIS is aorganization.
 - a) Government
 - b) Non-Government
 - c) Co-operatives
 - d) All of these
 - iii) Which among the following is the primary standard reagent?
 - a) NaOH
 - b) KOH
 - c) HCl
 - d) None of these

(P.T.O.)

- iv) DDT is a
- | | |
|---------------|-----------------|
| a) Fungicide | b) Insecticides |
| c) Herbicides | d) Nematicide |
- v) Internal volume of the graduated stem of the milk butyrometer corresponding to each 1% fat range is
- | | |
|-------------|-------------|
| a) 1.35 ml | b) 0.135 ml |
| c) 0.125 ml | d) 1.25 ml |

SECTION –‘B’

- Q. 3 A) Describe the importance of chemical quality control in dairy industry. (05)
B) Differentiate between quality control and quality assurance. (05)
- Q. 4 A) What is sampling? Describe the sampling procedure for milk from can and tanker. (05)
B) Discuss the principles of HACCP in detail. (05)
- Q. 5 A) Discuss the importance of calibration of laboratory glassware. (03)
B) Describe the calibration of milk butyrometers. (03)
C) Discuss the methods of softening of hard water. (04)
- Q. 6 A) Write the methods for detection of formalin and sugar in milk. (03)
B) Briefly discuss the role of FSSAI. (03)
C) Describe the working principle of milk-o-tester. (04)
- Q. 7 Classify dairy laboratories. Discuss in brief the general requirement for category A dairy laboratory. (10)
