

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

M.Sc (Food Technology) (2017 Batch) (Sem.-3)
FOOD SAFETY, STANDARDS AND QUALITY CONTROL
Subject Code : MSFT-612
Paper ID : [75577]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A contains SIX questions carrying TWO marks each and students has to attempt any ALL questions.
2. SECTIONS-B consists of FOUR Subsections : Units-I, II, III & IV. Each Subsection contains TWO questions each carrying TWELVE marks each and student has to attempt any ONE question from each Subsection.

SECTION-A

- Q1
- a) Write about basic elements of TQM.
 - b) What are QMS principles covered under ISO-9001 series?
 - c) Write 12 steps involved in HACCP implementation.
 - d) What the level of significant and degree of freedom indicates in SQC?
 - e) What is acceptance sampling plan and random sampling?
 - f) What are different types of sensory panels and their general selection criteria?
(6×2=12)

SECTION-B**UNIT-I**

- Q2
- a) What is a HACCP system and its impact on consumer health? Discuss the HACCP plant of any perishable food product manufacturing system. (10)
 - b) What is the purpose of Food Safety and Management System? (2)
- Q3
- a) What is ISO 9001 and ISO-22000? Discuss the implementation procedure for the ISO-22000 in the food industry. (2+5)
 - b) Explain Basic Elements of Effective Food Plant Cleaning and Sanitizing. (5)

UNIT-II

- Q4 a) Name various toxic food additives added in whole and ground spices. Write the steps of SOP for any three of them. (2+4)
- b) How the sensory results are interpreted using statistical quality control? Discuss role of SQC in quality estimation and control. (6)
- Q5 a) What is food safety, Basic concept, requirement, benefits and its impact on consumer health and economy? (5)
- b) What is food sampling, sampling risks and their benefits? Discuss various sampling criteria and plans. (7)

UNIT-III

- Q6 a) How taste is assimilated by tongue? Write the theory of sweet taste and mechanism of sweet taste analysis by tongue. (6)
- b) Write the steps and explain for the sensory evaluation criteria for the selection of fresh produce with suitable example. (6)
- Q7 a) What is food Kinesthetic and TPA? How we relate Kinesthetic & TPA with texture measurement using general food texture-meter? (6)
- b) What do you mean by rating/ ranking scale and threshold sensory analysis? Write the sensory evaluation criteria for complex foods systems like oily and variable taste foods. (6)

UNIT-IV

- Q8 a) What factors are responsible for flavor of fresh and processed juice from fruit? How the flavor quality of processed fruit juice concentrate can be improved? (6)
- b) Define Newtonian and non-Newtonian fluids with examples. Explain the occurrence of these fluids in food systems. (6)
- Q9 a) Draw working diagram of colorimeter, spectrophotometer. Write advantages of spectrophotometer over colorimeter. (6)
- b) What do you understand by raw material and finished product control? Write steps taken in the food industry to prevent cross contamination of finished product from raw material and surroundings. (6)