

**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**

**M.Code : 75577**

**Time : 3 Hrs.**

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**Max. Marks: 60**

### INSTRUCTIONS TO CANDIDATES :

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

## SECTION-A

- Q1. a) Write role of quality control in product development.  
b) Differentiate between HACCP and ISO.  
c) What do you mean by sensory evaluation and its importance?  
d) What is normal distribution? How it can be interpreted.  
e) Write about importance of SQC in food product development?  
f) Suggest various physical tests to judge the quality of unsliced bread.

## SECTION-B

## UNIT-I

- Q2. a) Discuss a HACCP plan for a bakery unit. (6)
- b) Write about twelve steps used in carrying out the HACCP plan. (6)
- Q3. a) What is need of hygienic practice in an abattoir and during fish handling? How these practice are helpful in cross contamination and spoilage? (2+4)
- b) Which national or international standards focus on quality assurance? Write key aspects of these standards with respect to QA (any three). (6)

## UNIT-II

- Q4. a) What are statistical quality control and its significant level checking parameters? Elaborate a general statistical quality control techniques used to check the effectiveness of an automatic pouch filling machine used in potato chips. (2+5)
- b) What are different types of incidental adulteration practices? How these are checked and controlled? Discuss. (5)
- Q5. a) How the inspection of fresh vegetable harvest is carried out? What safety majors are taken to ensure contamination prevention of fresh produces? (3+4)
- b) What is need of food sampling? What techniques are used to carry out the sampling of composite and heterogeneous materials? Explain. (5)

## UNIT-III

- Q6. a) Which tests are used to get the information about product acceptability using general public? Elaborate. (5)
- b) What comprises a sensory testing laboratory? Explain its basic requirement. (7)
- Q7. a) What are descriptive tests? How these tests are helpful to detect the changes in product flavour as a result of raw material variation as in case of alcoholic beverages? (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) Write techniques and applications of viscosity measurements using Admans viscometer and Bostwick consistometer. (6)
- b) Write the role of Soxhlet and Fibertech in food quality evaluation. Explain with schematic diagram the crude fat estimation by Soxhlet apparatus. (6)
- Q9. a) Which tests are used to maintain the quality of raw materials used for the production of tomato Ketchup? Discuss. (6)
- b) Write quality assurance criteria in the selection of oilseeds used for oil processing as well as oil refining. (6)

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**