

ASSIGNMENT BOOKLET

**M.SC.
IN
FOOD SAFETY AND QUALITY MANAGEMENT
(MSCFSQM)
2nd Year**

Academic Session : July 2023



**School of Agriculture
Indira Gandhi National Open University
New Delhi - 110068**

Dear student,

Hope that you have completed all the assignments of first year of your MSCFSQM programme. As you are aware that for theory, the weightage to the term-end examination will be 70% and the weightage to the continuous assessment will be 30%. The continuous assessment is in form of assignments. There are total four assignments in the second year of MSCFSQM. Each assignment will be of 50 marks which ultimately will be converted to have weightage of 30% of theory. Instructions to format your assignments are as follows:

Instructions to format your assignments

Before attempting the assignments, please read the following instructions carefully.

1. On top of the first page of your answer sheet, please write the details exactly in the following format.

Enrollment no:.....

Name:.....

Address:.....

.....

.....

Course Code:.....

Course Title:.....

Study Centre:.....

Date:.....

(Name and Code)

Please follow the above format strictly to facilitate evaluation and to avoid delay.

2. Use foolscap size paper for writing your answer.
3. Leave 4cm margin on the top, bottom and left of your answer sheet.
4. Clearly indicate question no. and part of the question being solved while writing answers.

Assignment No.	Last date of submission
	(For July, 2023)
Assignment 1 (MVP-005) and 2 (MVP-006)	31st March, 2024 (Before submission of TEE Form)
Assignment 3 (MVP-007) and 4 (MVP-009)	

5. **Assignments have to be sent to the Programme Coordinator of your study centre within the due date. Please visit www.ignou.ac.in for any change in due date.**
6. **We strongly suggest that you should retain a copy of your assignment responses.**
7. Your answer sheet should be complete in all respects. Make sure that you have answered to all the questions in assignments before you submit them. Incomplete answer sheets will lead to poor marks.
8. As far as possible students are advised to give the relevant points from the course material and elaborate their answers and explanations in their own language instead of reproducing the language of the course materials.

Wishing you good luck.

Assignment - 1
Course Code: MVP 005
Course Title: Food Toxicology and Public Health

Maximum marks: 50

Note: Attempt all the questions. Write the answers of the following in about 500 words each:

- Q.1. Explain the concept of ADME. 10
- Q.2. Write notes on (i) Food allergy and (ii) Hypervitaminosis 10
- Q.3. Write the toxic actions, symptoms and prevention of any one natural toxin and one heavy metal contamination. 10
- Q.4. Discuss the toxicity of any one pesticide residue and one veterinary drug residue. Give their limits as per the Food Safety and Standard Regulations (please visit www.fssai.gov.in for regulations). 10
- Q.5. Search the internet for the reporting of food poisoning cases in India and abroad. Mention 10 such cases. 10

Assignment - 2
Course Code: MVP 006
Course Title: Food Biotechnology

Maximum marks: 50

Note: Attempt all the questions.

- Q.1. Discuss the basic principle and applications of recombinant DNA technology. List the vectors used in recombinant DNA technology. 10
- Q.2. Name 10 popular fermented foods and give the steps of preparation of any one of them. How the strain of microorganisms is improved by mutation? 10
- Q.3. Write short notes on biogums, biocolours and bioflavours. 10
- Q.4. Narrate the improvement of the food crops by genetic engineering. 10
- Q.5. What are the biotechnological interventions in food waste utilization? Mention the GM food issues in India? 10

Assignment - 3
Course Code: MVP-007
Course Title: Emerging Trends in Food Technology and Safety

Maximum marks: 50

Note: Attempt all the questions.

- Q.1. Explain the principle of any two food processing technologies and give their applications in food. Describe any one active packaging. 10
- Q.2. Define and classify nutraceuticals and functional foods. Write a note on antimicrobial resistance. 10
- Q.3. Discuss the applications of predictive microbiology and nanomaterials in food industry. 10
- Q.4. Explain the concept of biosensor. List the molecular tools used for detection of food pathogen and give the principle of any one such tool. 10
- Q.5. Comment on digital transformation in food industry. Write a note on food fraud. 10

Assignment - 4
Course Code: MVP-009
Course Title: Research Methodology

Maximum marks: 50

Note: Attempt all the questions.

- Q.1. What are the criteria of a research problem? Explain the steps in review of literature. 10
- Q.2. Give the types of variables and hypothesis. How will you test a hypothesis in your research? 10
- Q.3. Discuss the characteristics of a research design. Write about any one descriptive research design. 10
- Q.4. Differentiate between primary and secondary data for a research. Narrate the instruments used for collection of primary data. 10
- Q.5. Describe the commonly used measures of central tendency. Explain any one qualitative technique used for research. 10