

ASSIGNMENT BOOKLET

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

Academic Session : January 2024 and July 2024



**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 January, 2024)	(For July, 2024)
Assignment 1 (MVP-005) and 2 (MVP-006)	30 th September, 2024	31 st March, 2025
Assignment 3 (MVP-007) and 4 (MVP-009)	(Before submission of TEE Form)	(Before submission of TEE Form)

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. Discuss the distribution and metabolism of toxicants in our body. 10
- Q.2. Describe the sample preparation techniques used for analysis of toxicants. 10
- Q.3. Write the source, toxic actions, symptoms and prevention of any one natural toxin and one process induced toxin. 10
- Q.4. Discuss the toxicity of any one heavy metal 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. Mention 5 such cases. 10

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

Maximum marks: 50

Note: Attempt all the questions.

- Q.1 Describe the role of different tools used in Recombinant DNA Technology. Enlist the basics steps in recombinant DNA Technology. 10
- Q.2 What do you mean by starter culture? Explain the characteristics and types of starter culture. 10
- Q.3 Write short notes on 10
1. Genetically modified food (GM Food)
 2. Restriction Endonuclease
 3. Biogums
 4. Single cell protein
- Q.4 Explain in detail biotechnological production of ethanol. 10
- Q.5 Discuss the mechanism of action of enzymes. Explain the application of biotechnology in biofuel and bioplastic production. 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. Discuss any one novel processing technology and one novel packaging technology. 10
- Q.2. What are the implications of emerging pathogens on public health? Write a note on the “One Health Concept”. 5+5
- Q.3. Discuss the role of predictive microbiology in food industry. 10
- Q.4. Explain the applications of nanomaterials and biosensors in food processing and safety. 10
- Q.5. Give examples of Food Fraud. What are the motivations for 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 features of a good research problem statement? Give the sources and classification of review of literature for a research project. 10
- Q.2. Write short notes on: 10
- i. Frequency distribution
 - ii. Central tendency
 - iii. Variables
 - iv. Hypothesis
- Q.3. What are the criteria of a research design. Give the classification of research design. 10
- Q.4. Classify the sampling techniques used in research and explain the probability based sampling techniques in brief. 10
- Q.5. What are the secondary data sources? Explain the instruments used for primary data collection for a research. 10