

ASSIGNMENT BOOKLET

PG DIPLOMA

IN

**FOOD SAFETY AND QUALITY MANAGEMENT
(PGDFSQM)**

Academic Session : 2016



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

Dear student,

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 is one assignment for each course i.e. total five assignments for the programme. 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. | Date of Submission |
|---|----------------------------------|
| Assignment 1 (MVP-001) and 2 (MVPI-001) | Before 31 st October |
| Assignment 3 (MVP-002) and 4 (MVP-003) | Before 31 st December |
| Assignment 5 (MVP-004) | Before 28 th February |

5. Assignments have to be sent to the coordinator of your study centre.
6. We strongly suggest that you should retain a copy of your assignment responses.

Wishing you good luck.

Assignment - 1
Course Code: MVP-001

Maximum marks: 50

Note: Attempt all the questions.

- Q.1. (a) Describe the dimensions and prospects of Food Processing Industry in the Country. 5
(b) What are the foods obtained from the plant sources? Explain post harvesting processing of plant sourced foods. 5
- Q.2. (a) Define water activity and the moisture sorption isotherm and give their significance in the quality of food. 5
(b) What is the purpose of using food additives? Describe different groups of food additives with appropriate examples. 5
- Q.3. (a) What are lipids? Describe important physical and chemical characteristics of lipids by which their purity is established? 5
(b) What are hyphenated techniques of instrumental analysis? Explain the advantages of GCMS and LCMS as compared to GLC and HPLC. 5
- Q.4. Describe different methods of food preservation with type and examples of products available in the market. Reflect on growth of these preservation methods. 10
- Q.5. (a) Explain the salient features of MAP. 5
(b) Describe the status and scope of nutraceuticals and traditional Indian Foods. 5

Assignment - 2
Course Code: MVPI-001

Maximum marks: 25

Note: Attempt all the questions.

- Q.1. What is the importance of microorganisms in food? Explain the bacterial growth curve. 5
- Q.2. Describe the causative agents and factors for common food borne diseases. 5
- Q.3. What is fermentation? Explain various types of food fermentation with examples. 5
- Q.4. Describe the methods for detection of *E.Coli* and *Listeria monocytogenes*. 5
- Q.5. Give the benefits of rapid detection techniques in microbiology and explain immunological methods of rapid detection. 5

Assignment - 3
Course Code: MVP-002

Maximum marks: 50

Note: Attempt all the questions.

- Q.1. Give the salient features of Food Safety and Standards Act, 2006 and Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations, 2011. 10
- Q.2. Describe the salient features of earlier existing PFA and Essential Commodities Act, 1955. 10
- Q.3. Describe Codex Subsidiary Bodies and their functions. Explain the need for harmonizing national standards with Codex. 10
- Q.4. (a) Explain the salient features of the Export Inspection Council. 5
(b) Describe the process and procedure for obtaining Export Certification System for fish products. 5
- Q.5. (a) Give the salient features of Plant Quarantine (Regulation of import into India) Order, 2003. 5
(b) Describe the powers and functions of Bureau of Indian Standards in relation to food safety and quality control. 5

Assignment - 4
Course Code: MVP-003

Maximum marks: 50

Note: Attempt all the questions.

- Q.1. Define food safety and explain various hazards to safe food. Describe sources of contamination and identify the steps to be taken for protection of foods from these contaminants. 10
- Q.2. (a) Explain general principles of food safety risk management. 5
(b) Describe the eight steps of preliminary risk management activities. 5
- Q.3. Differentiate between quality control and quality assurance. Describe the dimensions of food quality with respect to manufactured food and for a service. 10
- Q.4. Describe the principles and steps involved in the implementation of HACCP in a food industry. Develop a Hazard analysis worksheet covering critical control points operating limits and verification activities for a food processing plant packaging pasteurized milk/ fruit juice. 10
- Q.5. (a) What is traceability according to ISO definition? Describe objectives, rationale and components of traceability. 5
(b) Describe the important elements of general principles of food hygiene and Good Manufacturing Practices (GMPs) in a food processing plant. 5

Assignment - 5
Course Code: MVP-004

Maximum marks: 50

Note: Attempt all the questions.

- Q.1. (a) List different management systems along with numbers and explain the occupational health and safety management system requirements. 5
(b) Write about the personal attributes and knowledge and skills an auditor must. 5
- Q.2. Describe the documentation structure and clauses with their interpretation of ISO-9001:2008/2015. Develop a plan and procedure for certifying a food retail company at either end of the supply chain (inbound and outbound logistics). 10
- Q.3. (a) What are the main steps in planning and realization of safe product under ISO-22000:2005? 5
(b) Explain the key elements and benefits of ISO-22000:2005. 5
- Q.4. Describe the salient features of ISO 17025. Develop a guidelines/procedure to have NABL accreditation for a food laboratory. 10
- Q.5. Describe the salient features of important retail standards. Reflect on implementation aspects in reference to our food processing industry. 10