

DFPT

ASSIGNMENT

for

July 2021 Session

Diploma in Fish Products Technology (DFPT)

(Developed with the Financial Support of Ministry of Food Processing Industries, Govt. of India)



School of Agriculture

Indira Gandhi National Open University

New Delhi – 110 068

LAST DATE FOR SUBMISSION OF ASSIGNMENTS

| Course Code | Last Date of submission |
|--------------------|--------------------------------|
| BPVI-041 | 31 st December 2021 |
| BPVI-042 | 15 th January 2022 |
| BPVI-043 | 15 th February 2022 |
| BPVI-044 | 28 th February 2022 |
| BPVI-045 | 15 th March 2022 |
| BPV-046 | 30 th March 2022 |

Kindly submit your assignments at the concerned study centre within the due date as mentioned above

Dear learner,

Assignments carry 30% weightage in the continuous evaluation process of a course. The term-end examinations carry 70% weightage.

The assignments will be evaluated by the Counsellors at the study centre and the respective weightage of marks will be added to their percentage of marks obtained at the term-end examination. Each candidate will have to complete assignments in order to appear in the term-end examination. Candidates are, therefore, advised to take assignments seriously and submit them in time.

General Instructions

- 1) The validity of the assignments is ONE YEAR. If you fail to submit the assignments before the due date of the particular session, you are supposed to attempt the fresh set of assignment of subsequent January sessions.
- 2) Write your Enrolment Number, Name, Full Address and Date of Despatch at the top right-hand corner of the first page of your answer sheet.
- 3) Write the Programme Title, Course Title, Assignment Code, Code and Place of the Study Centre on the left- hand corner of the first page of your answer sheet.

The top of the first page of your answer sheet for each assignment should be as follows:

| | |
|---------------------------|-------------------|
| Programme Title | Enrolment No..... |
| Course Code & Title..... | Name |
| Assignment Code..... | Address |
| Study Centre (Code) | |
| Study Centre/TLC | |
| (Place) | Date |

Note: Students are required to follow this format strictly otherwise the assignments will not be evaluated.

- 4) 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.
- 5) 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.
- 6) You are advised not to copy from the study material while attempting the assignments. In case it is found that the assignments have been copied from study material, you will be awarded zero marks.
- 7) Avoid copying from the answer sheets of other students. If copying is noticed, the assignments of such students will be rejected.
- 8) Use only foolscap size paper for your answers, ordinary writing paper, neither too thick nor too thin, will do. Assignments should be hand written, typed assignment are not acceptable.
- 9) Leave 3”margin on the left and at least 4 lines in between each answer in an assignment. This will enable your Counsellor to write useful comments in appropriate places. Write question number for each answer.
- 10) The coordinator of your Study Centre will return the evaluated assignments to you. This will also include a copy of assessment sheet containing global comments of the evaluator on your performance in the assignments. This will enable you to improve in your future assignments as well as in the term-end examinations.
- 11) The Assignments should be sent or submitted to the Programme In-charge of the Study Centre allotted to you.

Course Code: BPVI-041

Course Title: Introduction to Fish, Processing, Packaging and Value Addition

Max. Marks: 50

Answer the following questions in 300-400 words. All questions carry equal marks.

- 1) Describe the role of fish in human nutrition.
- 2) What are the four major types of spoilage mechanisms occurring in fish? Explain any one in detail.
- 3) Describe the methods of handling wet fish on board a vessel.
- 4) What are the different fishery products of commerce? Explain any one in detail.
- 5) What is smoking of fish? How it helps in preserving fish? Describe the processes involved in it.
- 6) Differentiate between Air blast freezer and Horizontal Plate Freezer.
- 7) Define synthetic packaging materials. Identify the various types of synthetic plastic films used in packaging fish. Explain any one in detail.
- 8) Differentiate between Vacuum Packaging and Modified Atmosphere Packaging.
- 9) Discuss about the packaging of thermal processed fish products.
- 10) Describe the commercial role of value addition in fisheries sector.

Course Code: BPVI-042

Course Title: Mince and Mince Based Products

Max. Marks: 50

Answer the following questions in 300-400 words. All questions carry equal marks.

- 1) Define fish mince. Identify the fishes suitable for the production of fish mince. How it is produced?
- 2) Discuss about the storage and shelf-life of fish mince. What are the effects of temperature on storage stability of fish mince?
- 3) Describe the measures to be taken to preserve the quality of fish mince.
- 4) Describe the process of preparation of fish wafers with the help of flow diagram.
- 5) Differentiate between Fish finger and Fish sausage.
- 6) Define cryoprotectant. Explain the process of stabilizing surimi using cryoprotectants.

- 7) What does the word surimi mean? Give the preferred characteristics of fish meat which is used for production of high-quality surimi. Identify the fishes which can be used for preparation of surimi in India and give their characteristics.
- 8) Briefly describe the step-by-step procedure for preparation of crab stick.
- 9) Describe the grading parameters used in quality evaluation of Surimi.
- 10) Explain how the gel forming ability of surimi is determined.

Course Code: BPVI-043
Course Title: Coated Products

Max. Marks: 50

Answer the following questions in 300-400 words. All questions carry equal marks.

- 1) Explain the factors affecting the batter formulation.
- 2) Differentiate between conventional batter applicator and tempura batter applicator.
- 3) Define breading. Classify breadings. Tabulate the characteristics of different types of breadings.
- 4) What are the criteria to keep in mind while incorporating flavours in the breadings?
- 5) Describe the factors which may affect the quality of the breading process during application of breading.
- 6) List the machineries used in the production of coated products. Explain any one in detail.
- 7) Differentiate between Tunnel Freezing and Contact Tunnel Freezing.
- 8) Explain the different sensory parameters used for evaluation of quality of coated products.
- 9) Describe the process of preparation of coated butterfly shrimp with the help of a flow diagram.
- 10) Define fish sausage. Give its recipe. Describe the process of preparation of coated butterfly shrimp with the help of a flow diagram.

Course Code: BPVI-044
Course Title: Fish By-Products and Waste Utilization

Max. Marks: 50

Answer the following questions in 300-400 words. All questions carry equal marks.

- 1) Explain the process of preparation of fish liver oil.
- 2) Describe how fish meal is useful in poultry, animal and fish nutrition.

- 3) What is *beche-de-mer*? From which raw material it is prepared? Briefly describe the process of preparation of *beche-de-mer*.
- 4) What are the uses of shark fin rays and squalene?
- 5) Describe the process of extraction and purification of agar.
- 6) Define fish sauce. What are the materials required? Describe the process of preparation of fish sauce with the help of a flow diagram.
- 7) Describe the process of preparation, packaging and storage of salmon pickle.
- 8) What is chitin? What are the sources of chitin? Differentiate between chitin and chitosan.
- 9) Explain the process of preparation of acid fish silage with the help of a diagram.
- 10) List the medical and pharmaceutical uses of chitosan.

Course Code: BPVI-045
Course Title: Quality Assurance

Max. Marks: 50

Answer the following questions in 300-400 words. All questions carry equal marks.

- 1) What is TQM? Identify the factors which help in deciding the procedure for TQM. Explain them in brief.
- 2) Describe the process of autolytic spoilage in fish.
- 3) Discuss briefly about the biological hazards in fish.
- 4) Define adulterant. Give the basis on which a food article is considered to be adulterated.
- 5) Why are standards required in food products? What is the role of standards in fishery products?
- 6) Differentiate between ISO 22000 and ISO 9000.
- 7) Define the following:
 - a. HACCP
 - b. Hazard
 - c. Critical point
 - d. Critical Control Point
 - e. Good Manufacturing Practices
- 8) Discuss about the technical requirements of the Laboratory Management System/ISO 17025.
- 9) Discuss about the microbial methods of assessing seafood quality.
- 10) Discuss about the chemical compounds found most useful as quality indices in fish.

Course Code: BPV-046
Course Title: Marketing and Entrepreneurship Development

Max. Marks: 50

Answer the following questions in 300-400 words. All questions carry equal marks.

- 1) What is marketing? Give the importance of marketing. Describe the different channels of marketing with the help of a diagram.
- 2) Define marketing channels. What are the functions of marketing channels?
- 3) Identify the factors affecting demand and supply.
- 4) Define the following:
 - a. Capital
 - b. Total Product
 - c. Marginal Product
 - d. Law of diminishing returns
 - e. Market equilibrium
- 5) Explain the following in two to three sentences:
 - a. Budget
 - b. Balance sheet
 - c. Cash flow statement
 - d. Break-even point
 - e. Internal rate of return
- 6) What is price analysis? Why it is required? List the factors influencing price.
- 7) What is market research? Briefly explain the steps involved in doing market research.
- 8) Discuss about the different schemes of MPEDA related to fish marketing.
- 9) Define entrepreneurship. Explain the different types of entrepreneurship. What are the challenges faced by the entrepreneurs?
- 10) Develop a guideline for preparation of a bankable project.