



# **ASSIGNMENTS**

**for**

**July 2015 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
BPVI-041	15 <sup>th</sup> October 2015
BPVI-042	15 <sup>th</sup> November 2015
BPVI-043	15 <sup>th</sup> December 2015
BPVI-044	15 <sup>th</sup> January 2016
BPVI-045	15 <sup>th</sup> February 2016
BPV-046	15 <sup>th</sup> March 2016

- Kindly submit your assignments at the concerned study centre/PSC within the due date as mentioned above.
- Before submitting the examination form (March and September for June and December Term-end examinations, respectively), it is essential to submit the assignment and get authentication from Programme-in charge or Coordinator of the study centre/PSC for the courses you will be appearing for.

**Note:** First of all read the assignment/questions and instructions carefully and identify the components of an assignment. You should read the relevant sections and sub-sections of a unit while preparing your responses and write answers in your own words. Your responses should not be a verbatim reproduction of the textual materials/blocks provided for self-learning purposes. We also suggest that, you may read additional materials available in your study centre or in any other library before preparing your responses. But extra reading is not a must to answer these assignments.

Dear learner,

Welcome to the “Diploma in Fish Products Technology” (DFPT) programme.

We hope that you have gone through the Programme Guide of DFPT carefully. It is extremely important to complete the assignments within the stipulated time to be eligible to appear for the term-end examination. All the assignments of DFPT are Tutor Marked Assignments (TMAs) and are part of the continuous evaluation process. 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 Dispatch 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 .....	Course Code & Title.....
Enrolment No.....	Name .....
Assignment Code.....	Address .....
Study Centre (Code) .....	Study Centre .....
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 all the questions in assignments before you submitting. 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 study material while attempting 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) Assignments should be sent/submitted to Programme In-charge of the study centre allotted to you.

Before attempting the assignments, please read the instructions carefully.

We suggest that you should retain a copy of your assignment responses.

Wishing you all the best for successful completion of the DFPT programme.

**HAPPY LEARNING!**

**Programme Coordinator (DFPT)**

**Course Code: BPVI-041**  
**Course Title: Introduction to Fish, Processing, Packaging and Value Addition**

**Maximum Marks: 50**  
**Submission Date: 15<sup>th</sup> October 2015**

**Attempt all questions. All questions carry equal marks.**

**10X5=50**

- 1) Summarize the present status of fish and fisheries in our country.
- 2) Explain the four major types of spoilage mechanisms occurring in fish and stress as to how they help you to assess the spoilage of fish?
- 3) Define K Value? What is its importance? How it is calculated?
- 4) Describe the methods of handling wet fish on board a vessel.
- 5) What are the different fishery products of commerce? Write a brief account of the different products citing suitable examples?
- 6) Explain the following in two to three sentences:
  - a) Air blast freezer
  - b) Cryogenic Freezing
  - c) Principle of Refrigeration
  - d) Individual Quick Freezing
  - e) Pouched Products
- 7) What are the different systems of packaging adopted in fish products? Explain in detail any one system of packaging.
- 8) Discuss about the packaging of thermal processed fish products.
- 9) List the types of synthetic plastic films used in packaging fish. Explain any one in detail.
- 10) Describe the factors influencing value addition?

**Course Code: BPVI-042**  
**Course Title: Mince and Mince Based Products**

**Maximum Marks: 50**  
**Submission Date: 15<sup>th</sup> November 2015**

**Attempt all questions. All questions carry equal marks.**

**10X5=50**

- 1) What are the advantages and disadvantages of fish mince? How fish mince is used in the fish processing industry?
- 2) Describe the production and storage of surimi touching upon various fish species used.
- 3) Explain how we can improve the appearance and quality of minced fish.
- 4) Describe the process of preparation of fish wafers with the help of flow diagram.
- 5) Define analogue products. Write a brief account on analogue product preparation.
- 6) Explain surimi processing from dark muscle fishes.
- 7) Differentiate between Fish Finger and Fish Sausage.
- 8) What is crab analogue? Draw a flow diagram for preparation of crab stick.
- 9) Describe the grading parameters used in quality evaluation of Surimi.
- 10) Describe the different methods of estimation of surimi quality parameters.

**Course Code: BPVI-043**  
**Course Title: Coated Products**

**Maximum Marks: 50**  
**Submission Date: 15<sup>th</sup> December 2015**

**Attempt all questions. All questions carry equal marks.**

**10X5=50**

- 1) Explain the different types of batter and their composition.
- 2) Differentiate between Home-style breadcrumbs and Japanese style crumbs.
- 3) Define breadings. Tabulated the characteristics of different types of breadings.
- 4) What are the criteria a flavour should satisfy before incorporating in the breadings?
- 5) Describe the factors which may affect the quality of the breading process during application of breading.
- 6) What are the different equipment used for freezing and storage of processed fish products. Explain any one in detail.
- 7) Describe the different steps in the process of coating.
- 8) What are hazards? What are different types of hazards? Discuss about the chemical hazards in fish products?
- 9) What are crab claw balls? What are the ingredients required for its preparation? Explain its preparation process through 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**

**Maximum Marks: 50**  
**Submission Date: 15<sup>th</sup> January 2016**

**Attempt all questions. All questions carry equal marks.**

**10X5=50**

- 1) Explain the process of preparation of fish liver oil.
- 2) Summarize the industrial applications of Fish body oils.
- 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) What is Carrageenan? What are its uses in food and non-food industry?
- 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) Explain the process of preparation of acid fish silage with the help of a diagram.
- 8) Explain the process of preparation of fish pickle with tamarind.
- 9) What is chitin? What are the sources of chitin? Differentiate between chitin and chitosan.
- 10) List the medical and pharmaceutical uses of chitosan.

**Course Code: BPVI-045**  
**Course Title: Quality Assurance**

**Maximum Marks: 50**  
**Submission Date: 15<sup>th</sup> February 2016**

**Attempt all questions. All questions carry equal marks.**

**10X5=50**

- 1) Describe the factors which help in deciding the procedure for TQM.
- 2) Discuss about organoleptic evaluation of fish and prawn.
- 3) Summarize the biological hazards in fish.
- 4) Define adulterant. Give the basis on which a food is considered to be adulterated.
- 5) Explain about the benefits of ISO 22000.
- 6) Why standards are required in food products? What is the role of standards in fish products?
- 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 Food Safety Management System.
- 9) Describe the microbial methods of assessing seafood quality.
- 10) Identify the common pathogens present in seafood. Explain any one in detail.

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

**Maximum Marks: 50**  
**Submission Date: 15<sup>th</sup> March 2016**

**Attempt all questions. All questions carry equal marks.**

**10X5=50**

- 1) Define direct marketing. What are its advantages? Give an example.
- 2) What are the functions of marketing channels?
- 3) Identify the factors affecting demand and supply.
- 4) Define the following:
  - a) Budget
  - b) Balance sheet
  - c) Break-even point
  - d) Current liabilities
  - e) Internal Rate of Return
- 5) What is price analysis? Why it is required? List the factors influencing price.
- 6) What is market research? Briefly explain the steps involved in doing a market research.
- 7) Define Empowerment. Briefly discuss about the process of empowerment.
- 8) Discuss about the different types of entrepreneurship.
- 9) Briefly discuss about the process of empowerment.
- 10) Develop a guidelines for preparation of a bankable project.