

ASSIGNMENT BOOKLET

DIPLOMA IN MEAT TECHNOLOGY (DMT)

Academic Session : January 2023 and July 2023



**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 80% and the weightage to the continuous assessment will be 20%, here is an instruction for formatting your assignment. There is one assignment for each course i.e. total eight assignments for the programme. Each assignment will be of 50 marks which ultimately will be converted to have weightage of 20 % of theory.

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	
	(January session)	(July session)
Assignment 1 (BPVI-021) and 2 (BPVI-022)	Before 30th April	Before 31st December
Assignment 3 (BPVI-023) and 4 (BPVI-024)	Before 31st May	Before 31st January
Assignment 5 (BPVI-025) and 6 (BPVI-026)	Before 31st July	Before 28th February
Assignment 7 (BPVI-027) and 8 (BPVI-028)	Before 30th September	Before 31st March

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: BPVI-021

Total marks: 50

Answer all the questions given below.

	Marks
Q. 1 a) Give the nutritional classification of food alongwith examples.	5
b) What are the functions of carbohydrate in our body?	5
Q. 2 a) Classify amino acids. List types of muscle proteins	5
b) Write a note on lipid disorders in human.	5
Q. 3 a) Name five hormones and give their site of production.	5
b) Write the functions of vitamin A in our body.	5
Q. 4 a) Write the functions of one major and one trace mineral in our body.	5
b) Explain digestion of carbohydrates in our body.	5
Q. 5 a) Classify food borne illnesses and give the WHO's Golden rules for safe food preparation.	5
b) State the principles of meat preservation	5

Assignment- 2
Course Code: BPVI-022

Total marks: 50

Answer all the questions given below.

	Marks
Q. 1 a). What are the potential advantages and major constraints of Indian meat export?	5
b) Write about housing of meat animals.	5
Q. 2 a). Explain the factors to be considered for selection of the site for a meat plant.	5
b) List the main components of an abattoir and explain any one component.	5
Q. 3 a). How the meat animals can be transported from farm to slaughterhouse?	5
b) How ante mortem examination is conducted for meat animals?	5
Q. 4 a). Write the principles and judgement of post mortem examination.	5
b) What are the different methods of animal slaughter? Explain any one method.	5
Q. 5 a). Explain the steps of slaughter and dressing of pig.	5
b) Define meat borne zoonoses and list the meat borne zoonotic diseases.	5

Assignment- 3
Course Code: BPVI-023

Total marks: 50

Answer all the questions given below.

	Marks
Q. 1 a) Describe the structure of skeletal muscle along with a diagram.	5
b) Differentiate the following: (i) Red and White muscle fibre (ii) PSE and DFD meat	5

Q. 2	a) Define rigor mortis and explain its different stages.	5
	b) Narrate post mortem changes in physical characteristics of muscle.	5
Q. 3	a) Write short notes on meat protein and meat fat.	5
	b) List the pre-slaughter factors that affect quality of meat and explain any one factor.	5
Q. 4	a). List the factors used to establish quality grades of carcass and explain any one factor.	5
	b) Write the methods and advantages of electrical stimulation.	5
Q. 5	a). Write a note on hot processing of meat/carcass.	5
	b) Describe the freezing storage of meat.	5

Assignment-4
Course Code: BPVI-024

Total marks: 50

Answer all the questions given below.

		Marks
Q. 1	a). Classify meat products and write purposes of meat processing.	5
	b) Explain any two methods of meat processing.	5
Q. 2	a) Describe the methods of dry curing and pickle curing.	5
	b) Narrate the series of reactions for development of cured colour of meat.	5
Q. 3	a) Define food additives and write the functions of any four food additives.	5
	b) Write the characteristics of economic formulation.	5
Q. 4	a) Narrate the steps for preparation of sausage.	5
	b) What is the purpose of canning? Give the steps for preparation of canned meat product	5
Q. 5	Write notes on the following: i. Restructured meat product ii. Enrobed meat product	10

Assignment- 5
Course Code: BPVI-025

Total marks: 50

Answer all the questions given below.

		Marks
Q. 1	a) Classify the packaging materials with examples.	5
	b) What is the purpose of packaging? What is meant by aseptic packaging?	5
Q. 2	a) How would you like to package fresh mutton and frozen chicken?	5
	b) Write short notes on following: i. Vacuum packaging ii. Modified atmosphere packaging	5
Q. 3	a) What are the criteria for being a specialized sensory panelist?	5
	b). List the sensory test that can be used for meat products and explain any one test.	5

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|------|--|------------------|---|
| Q. 4 | a) Write short notes on following: i. Quality assurances | ii. Food hygiene | 5 |
| | b) Narrate the principles of HACCP. | | 5 |
| Q. 5 | a). Write the properties of a good sanitizer and list sanitizers used in meat plant. | | 5 |
| | b) Write the steps in cleaning and sanitation of meat premises. | | 5 |

Assignment- 6
Course Code: BPVI-026

Total marks: 50

Answer all the questions given below.

- | | | | Marks |
|------|--|--|-------|
| Q. 1 | a) Describe the structure of an egg with the help of a diagram. | | 5 |
| | b) Explain the Indian standards of poultry (chicken) carcass grading. | | 5 |
| Q. 2 | a) List the methods of egg preservation and explain any two methods. | | 5 |
| | b) Describe the process of frozen egg pulp preparation. | | 5 |
| Q. 3 | a) Give the steps of fresh poultry processing and explain any two steps. | | 5 |
| | b) Write short notes on i. Candling of egg ii. Cut up parts of poultry | | 5 |
| Q. 4 | a) How will you prepare a tandoori chicken? | | 5 |
| | b) Describe the design and construction of slaughter hall in a poultry processing plant. | | 5 |
| Q. 5 | a) Narrate the packaging of eggs. | | 5 |
| | b) Explain the nutritive value of poultry meat. | | 5 |

Assignment- 7
Course Code: BPVI-027

Total marks: 50

Answer all the questions given below.

- | | | | Marks |
|------|--|--|-------|
| Q. 1 | a) Define animal by-products and classify them with examples. List the poultry by-products. | | 5 |
| | b) What are the benefits derived from by-product utilization? | | 5 |
| Q. 2 | a) Describe the procedure of conversion of skin to leather. | | 5 |
| | b) Explain the steps of casing preparation. | | 5 |
| Q. 3 | a) Name five important glands or organs along with their active principles. | | 5 |
| | b) List the various sections of a by-product plant. What will you do for deodourisation in a by-product plant? | | 5 |
| Q. 4 | a) Define rendering and explain the process of wet rendering. | | 5 |
| | b)) Give the flow diagram for preparation of gelatine from bone. | | 5 |
| Q. 5 | a) How biogas is produced from meat plant wastes? | | 5 |
| | b) List primary treatments of slaughterhouse effluents and explain any two. | | 5 |

Assignment- 8
Course Code: BPVI-028

Total marks: 50

Answer all the questions given below.

	Marks
Q. 1	10
Visit https://www.fssai.gov.in/upload/uploadfiles/files/Licensing_Regulations.pdf and read the part 4 of schedule 4 of Food Safety and Standards (licensing and registration of food business) Regulation, 2011. Write 10 important points with respect to the General hygienic and sanitary practices to be followed by food business operators applying for license- Slaughter house and meat processing.	
Q. 2	5
a) What are the problems in marketing of meat and meat products in India? Write a short note on livestock fair.	
	5
b) What measures should be taken to increase the cooking yield of the meat products?	
Q. 3	5
a) Write about the marketing channels involved in marketing of meat.	
	5
b) Narrate the modes of transport of meat animals.	
Q. 4	5
a) Write about the essential skills of an entrepreneur.	
	5
b) Briefly describe the business plan outline.	
Q. 5	10
Calculate the production cost of 1kg chicken sausage assuming that 50 kg emulsion is prepared in a day in the processing unit and 5% flour is used for extension of the product.	