

ASSIGNMENT BOOKLET

**DIPLOMA PROGRAMME
IN
MEAT TECHNOLOGY (DMT)**

**School of Agriculture
Indira Gandhi National Open University
New Delhi, 110068.
2016**

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.

Instruction for formatting your assignment

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 (BPVI-021) and 2 (BPVI-022)	Before 31 st October
Assignment 3 (BPVI-023) and 4 (BPVI-024)	Before 31 st December
Assignment 5 (BPVI-025) and 6 (BPVI-026)	Before 31 st January
Assignment 7 (BPVI-027) and 8 (BPVI-028)	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: BPVI-021

Total marks: 50

Answer all the questions. All questions carry equal marks.

Q.1	a) What do you mean by body building foods?	2
	b) What are simple lipids? Give examples.	2
	c) Define essential amino acids. Give examples.	2
	d) What are the functions of carbohydrates in our body?	2
	e) Name different myofibrillar proteins.	2
Q.2	a) Classify vitamins. Write the functions of vitamin C.	4
	b) Name at least one condition caused by each of the following: deficiency of thiamin, deficiency of riboflavin, deficiency of niacin and deficiency of pyridoxine.	2
	c) Name two hormones secreted from anterior pituitary and two from alimentary canal.	2
	d) What is the role of hormones in carbohydrate metabolism?	2
Q.3	a) Write the functions of the phosphorus in the human body and the clinical disorder caused by deficiency of this mineral.	4
	b) Write the functions of bioflavonoids.	3
	c) Write the functions of bile salt.	3
Q.4	a) Narrate the digestion of protein and carbohydrate in human body.	7
	b) Differentiate between food-borne intoxication and food-borne infection.	3
Q.5	a) List the intrinsic parameters of food which affect the growth of microbes.	1
	b) List the physical agents for controlling the microbial growth.	2
	c) Write the principles of meat preservation.	3
	d) Write short note on following: (i) Meat preservation by fermentation (ii) Hurdle technology	4

Assignment- 2
Course Code: BPVI-022

Total marks: 50

Answer all the questions. All questions carry equal marks.

Q.1	a) Write the present status of livestock population and meat production in India.	4
	b) Write about day to day management of animal for optimum production.	6
Q.2	a) What points should you consider for selection of the site for an abattoir?	4
	b) Narrate briefly the major components of an abattoir.	6
Q.3	a) What are the objectives of ante-mortem examination?	2
	b) Write the decision/judgement of ante-mortem examination.	4
	c) What are the facilities required for post-mortem examination?	2
	d) List the diseases and conditions for which the carcass is totally or partially condemned.	2
Q.4	a) What is meant by stunning?	1
	b) Why CO ₂ anaesthesia is advantageous?	2

	c) Write the steps involved in dressing of pig and goat.	4
	d) What do you mean by line dressing system?	3
Q.5	a) What do you mean by rendering? List the products obtained by rendering.	2
	b) List the edible offals obtained from slaughter of an animal.	3
	c) Define zoonoses. List the meat borne bacterial zoonotic diseases.	3
	d) Write a note on mad cow disease.	2

Assignment- 3
Course Code: BPVI-023

Total marks: 50

Answer all the questions. All questions carry equal marks.

Q.1	a) Narrate briefly the structure of skeletal muscle along with a diagram.	7
	b) Differentiate between red and white muscle fibre.	3
Q.2	a) Give the flow diagram of post mortem changes in muscle.	5
	b) Write the composition of a typical mammalian muscle.	5
Q.3	a) What are the basic considerations for meat cutting?	3
	b) List the wholesale cuts of lamb and pig carcass.	2
	c) Write about the factors to be considered for the quality grading.	5
Q.4	a) Write short notes on following: i. Water holding capacity ii. Tender stretch method for tenderization	6
	b) Differentiate between PSE and DFD meat.	2
	c) List the factors affecting tenderness of the meat.	2
Q.5	Write short notes on following. a) Freezing of meat b) Hot processing c) Cold shortening d) Thawing	4x2½ =10

Assignment-4
Course Code: BPVI-024

Total marks: 50

Answer all the questions. All questions carry equal marks.

Q.1	a) What are the advantages of meat processing?	4
	b) Classify meat products.	3
	c) Define emulsion. Write the purposes of emulsion preparation.	4
Q.2	Write short notes on the following: a) Intermediate moisture meat b) Fermentation c) Restructured meat	4x2½ =10

	d) Canning	
Q.3	a) List the curing agents.	2
	b) Illustrate the series of reactions for development of cured colour of meat.	4
	c) Narrate briefly the methods of pickle curing.	4
Q.4	a) Write the factors for reduction of production cost of meat products.	2
	b) List the ingredients used for economic formulation.	2
	c) Write the importance of enrobing and general steps for preparation of enrobed product.	6
Q.5	a) Write the steps for processing of following: i) Sausage ii) Ham	4x2=8
	b) What are the different types of spoilage of canned meat products?	2

Assignment- 5
Course Code: BPVI-025

Total marks: 50

Answer all the questions. All questions carry equal marks.

Q.1	a) What is the purpose of packaging?	2
	b) Classify the packaging materials with examples.	5
	c) What is meant by aseptic packaging?	3
Q.2	a) Write short notes on following: i) Vacuum packaging ii) Modified atmosphere packaging	6
	b) How would you like to package fresh mutton and fresh chicken?	4
Q.3	a) What are the criteria for being a specialized sensory panellist?	4
	b) How would you prepare the meat sample for sensory evaluation?	3
	c) How hedonic scale can be used for sensory evaluation of sausage?	3
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.	2
	b) List the detergents and sanitizers used in meat plant.	3
	c) List the national and international regulatory agencies associated with meat production and marketing.	2
	d) Identify the Critical Control Points (CCP) in a poultry processing line.	3

Assignment- 6
Course Code: BPVI-026

Total marks: 50

Answer all the questions. All questions carry equal marks.

Q.1	a) Describe the structure of an egg with the help of a diagram.	5
	b) Explain the Indian standards of egg grading.	5
Q.2	a) Describe the methods of egg preservation.	7
	b) How the egg should be handled after collection from layer house?	3
Q.3	a) Write the steps of egg powder preparation.	5
	b) How will you prepare a tandoori chicken?	5
Q.4	a) Write the steps of fresh poultry processing.	5
	b) Describe the design and construction of slaughter hall in a poultry processing plant.	5
Q.5	a) What do you mean by automatic poultry dressing line?	5
	b) Write about the BIS grading of dressed chicken.	5

Assignment- 7

Course Code: BPVI-027

Total marks: 50

Answer all the questions. All questions carry equal marks.

Q.1	a) Define animal by-products. Classify meat plant by-products.	3
	b) What are the benefits derived from by-product utilization?	5
	c) Write short note on poultry by-products.	2
Q.2	a) Describe the procedure of conversion of skin to leather.	5
	b) Enlist the steps of casing preparation.	2
	c) Give examples of six important glands or organs along with their active principles.	3
Q.3	a) List the various sections of a by-product plant.	2
	b) What will you do for de-odourization in a by-product plant?	3
	c) Differentiate between dry and wet rendering.	3
	d) What do you know about glandular by-products?	2
Q.4	a) Give the flow diagram for preparation of gelatin from bone.	4
	b) What are the uses of hair and wool?	3
	c) Write the uses of animal blood in various industries.	2
	d) What is neat's foot oil?	1
Q.5	a) Write a short note on compost making by stack method.	3
	b) Write about the treatment of effluents obtained from a meat plant.	7

Assignment- 8
Course Code: BPVI-028

Total marks: 50

Answer all the questions. All questions carry equal marks.

Q.1	a) What are the problems in marketing of meat and meat products in India?	3
	b) What measures should be taken to increase the cooking yield of the meat products?	4
	c) Write a short note on livestock fair.	3
Q.2	a) Write about the marketing channels involved in marketing of meat and meat products.	7
	b) Write a short note on transport of animals.	3
Q.3	a) Write about the essential skills of an entrepreneur.	5
	b) Write a note on Meat Food Product Order, 1973.	5
Q.4	Calculate the production cost of 1kg mutton sausage assuming that 60 kg emulsion is prepared in a day in the processing unit and 5% flour is used for extension of the product.	10
Q.5	a) Briefly describe the business plan outline.	5
	b) List the sources for long term finance for your business.	3
	c) List the equipment required in a medium level meat processing plant.	2