

ASSIGNMENT BOOKLET

DIPLOMA PROGRAMME IN MEAT TECHNOLOGY (DMT)

**School of Agriculture
Indira Gandhi National Open University
New Delhi, 110068.
2018**

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:.....

(Name and Code)

Date:.....

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 December
Assignment 3 (BPVI-023) and 4 (BPVI-024)	Before 31 st January
Assignment 5 (BPVI-025) and 6 (BPVI-026)	Before 28 th February
Assignment 7 (BPVI-027) and 8 (BPVI-028)	Before 31 st March

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 given below.

- Q.no.1
- a. Explain important functions of carbohydrates. 5
- b. Classify lipids according to chemical nature and write any two functions of lipids. 5
- Q.no.2
- a. Write the sources and functions of one water soluble and one fat soluble vitamin. 5
- b. Write one function each of five hormones in human . 5
- Q.no.3
- a. Describe in brief the digestion of carbohydrate in our body. 5
- b. Explain the role of three major and two trace elements in our body. 5
- Q.no.4
- a. Define food borne infection and intoxication. write about any two food borne diseases. 5
- b. Describe extrinsic factors which affect the microbial growth in food. 5
- Q.no.5
- a. How low temperature and high temperature are applied for meat preservation? 5
- b. Write short notes on fermentation and hurdle technology. 5

Assignment- 2
Course Code: BPVI-022

Total marks: 50

Answer all the questions given below.

- Q.no.1
- a. Name two breeds each of cattle, buffalo, sheep, goat and pig. Give the population statistics of livestock in India (Reference: www.nddb.org/information/stats/pop) 5
- b. Nararte the basic guidelines for animal feeding. 5
- Q.no.2
- a. What points will you consider for selection of a site for your meat processing plant? 5
- b. Give the layout of a modern abattoir. 5
- Q.no.3
- a. Describe different modes of transport of meat animals from animal farm to slaughterhouse. 5
- b. Who does ante-mortem examination of animals and what procedure he/she follows for examination? 5
- Q.no.4
- a. Define 'humane slaughter' and describe any one stunning method. 5

- b. What do you understand by line dressing system? Write its advantages and disadvantages. 5
- Q.no.5
- a. What are the facilities required for post mortem examination of carcass? write the principles of post mortem examination. 5
- b. Define 'zoonoses'. write about any two meat borne zoonotic diseases. 5

Assignment- 3
Course Code: BPVI-023

Total marks: 50

Answer all the questions given below.

- Q.no.1
- a. Explain organization of skeletal muscle from gross structure to molecular level. 5
- b. Describe post mortem changes in physical characteristics of muscle. 5
- Q.no.2
- a. Give the chemical composition of different species meat and write about meat proteins. 5
- b. Narrate the factors that affect chemical composition of meat. 5
- Q.no.3
- a. Classify meat qualities. Explain ante-mortem factor that influence meat qualities. 5
- b. Write short notes on pH of meat and WHC of meat. 5
- Q.no.4
- a. Describe the wholesale cuts of goat carcass as per the Indian method. 5
- b. Explain the factors used to establish cutability grades of carcass. 5
- Q.no.5
- a. How is meat tenderized by application of electrical stimulation and tender stretch method? 5
- b. Write about freezing methods used for preservation of meat. 5

Assignment- 4
Course Code: BPVI-024

Total marks: 50

Answer all the questions given below.

- Q.no.1
- a. What are the advantages of meat processing? Classify meat products. 5
 - b. Define emulsion and explain the factors affecting stability of emulsion. 5
- Q.no.2
- a. Define hurdle technology and give the principles of development of IMM products. 5
 - b. List curing ingredients. Write functions of any three ingredients. 5
- Q.no.3
- a. List the meat additives and write role of any two meat additives in meat processing. 5
 - b. What is meant by economic formulation and how will you prepare such formulation for any meat product? 5
- Q.no.4
- a. Describe the process of canning of meat product. 5
 - b. Narrate the methods of restructuring of meat products. 5
- Q.no.5
- a. Name two cured meat products and write the steps of ham preparation. 5
 - b. What are the characteristics of fermented meat products? Give the flow diagram of any one fermented meat product. 5

Assignment- 5
Course Code: BPVI-025

Total marks: 50

Answer all the questions given below.

- Q.no.1
- a. See any pre-packaged food product and write the labelling information given on the label. Give your comments whether FSSAI guidelines have been followed for packaging and labelling or not. (Visit www.fssai.gov.in for packaging and labelling guidelines) 8
- b. Classify packaging materials alongwith examples. 2
- Q.no.2
- a. Write about packaging requirements of frozen meat and cured meat. 5
- b. How will you prepare a meat sample for sensory evaluation? How should be the sensory evaluation room? 5
- Q.no.3
- a. Explain any two difference tests used for sensory evaluation of meat products. 5
- b. Describe quality assurance practices that should be followed at kitchen level. 5
- Q.no.4
- a. Explain seven principles of HACCP 5
- b. Describe any two methods of carcass sanitation. 5
- Q.no.5
- a. Visit www.fssai.gov.in and go through the supplementary study materials for Food safety and standards act. write about the basic hygienic requirements for meat shop. 10

Assignment- 6
Course Code: BPVI-026

Total marks: 50

Answer all the questions given below.

- Q.no.1
- a. Write about nutritive value of eggs. 5
- b. Explain the quality factors used in grading of eggs 5
- Q.no.2
- a. List egg preservation methods and describe any two of them. 5

b.	Narrate the process of frozen egg pulp preparation.	5
Q.no.3		
a.	List different sections of poultry processing plant and describe any two sections.	5
b.		5
Q.no.4	Write notes on scalding of poultry carcass and evisceration.	
a.	Describe the grading of dressed chicken as per Indian standards.	5
b.	“Poultry meat is a good source of protein and vitamins”- justify the statement.	5
Q.no.5		
a.	Write about preservation of poultry meat by freezing.	5
b.	Give the recipe and flow diagram of any chicken product preparation.	5

Assignment- 7
Course Code: BPVI-027

Total marks: 50

Answer all the questions given below.

Q.no.1		
a.	Describe by-products from poultry industry.	5
b.	“ Utilization of animal by-products is beneficial”- justify the statement	5
Q.no.2		
a.	Narrate the methods of preservation of skin for further processing.	5
b.	Describe the process of converting animal intestine into casing.	5
Q.no.3		
a.	Name five important equipment used in by-product processing plant and write their uses.	5
b.	Define rendering and give the flow diagram for preparation of carcass meat by dry rendering method.	5
Q.no.4		
a.	Write short notes on neat’s foot oil and blood meal	5
b.	How is gelatine processed from bones?	5
Q.no.5		
a.	List the sources of wastes from abattoir. Explain compost manure production by stack method.	5
b.	Briefly describe the secondary treatment of meat plant effluents.	5

Assignment-8
Course Code: BPVI-028

Total marks: 50

Answer all the questions given below.

- Q.no.1
- a. How will you judge and grade the livestock for meat purpose ? 5
 - b. Describe the skills that one should have as an entrepreneur. 5
- Q.no.2
- a. Write notes on livestock fair and livestock auction. 5
 - b. Explain the systems of direct marketing of meat and vertical integration system. 5
- Q.no.3
- a. Discuss the business plan outline. 5
 - b. Narrate briefly the essential steps for evaluation of any business idea. 5
- Q.no.4
- a. Describe any five marketing channels for meat animals and meat products. 5
 - b. Explain the types of capital required for a business and resources of finances. 5
- Q.no.5
- a. If you want to start a chicken dressing cum product processing plant where daily 400 birds will be processed, what will be the cost of your project? 10