

ASSIGNMENT BOOKLET

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

School of Agriculture
Indira Gandhi National Open University
New Delhi, 110068.
2020

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 30 th December
Assignment 3 (BPVI-023) and 4 (BPVI-024)	Before 30 th January
Assignment 5 (BPVI-025) and 6 (BPVI-026)	Before 28 th February
Assignment 7 (BPVI-027) and 8 (BPVI-028)	Before 25 th 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.	Classify foods with examples. Write the functions of food.	3+3
b.	Classify lipids and write the industrial uses of lipids	4
Q. no.2		
a.	Classify proteins. What is meant by essential amino acid?	3+2
b.	Write the functions of vitamin A and calcium.	2 ½ + 2 ½
Q. no. 3		
a.	Discuss the digestion of carbohydrate in our body.	6
b.	Write the role of bile salt and gastric juice in digestion of food.	2 + 2
Q. no. 4		
a.	Describe extrinsic factors that affect microbial growth in food.	5
b.	List the sources of microbes in food. List the chemical and physical agents for controlling the microbial growth.	2+3
Q. no. 5	Write short notes on the following:	4 x 2 ½
	i. Food borne intoxication ii. Food allergy iii. Curing iv. Low temperature preservation	

Assignment- 2
Course Code: BPVI-022

Total marks: 50

Answer all the questions given below.

Q. no. 1		
a.	Give the population statistics of livestock in India (Reference: 20 th livestock census www. http://dadf.gov.in/). In your opinion what are the major constraints affecting India's meat export?	3+3
b.	Write about any two day to day management of animal for optimum production.	4
Q. no.2		
a.	What are the basic considerations for transport of meat animals?	5
b.	What points should you consider for selection of the site for a meat plant?	5
Q. no. 3		
a.	Why post-mortem inspection of meat animal is done? Write its judgment.	3+3
b.	What facilities are required in an abattoir?	4
Q. no. 4		
a.	Briefly describe any two stunning methods.	6
b.	Give the steps of slaughtering and dressing of sheep.	4
Q. no. 5	Write short notes on the following:	4 x 2 ½
	i. Halal slaughter ii. Notifiable animal diseases iii. Ante-mortem care iv. Meat borne diseases.	

Assignment- 3
Course Code: BPVI-023

Total marks: 50

Answer all the questions given below.

- Q. no. 1
- a. What are the components of skeletal muscle fiber? Draw a diagram of muscle fiber. 3+3
- b. Differentiate the following: i. Red and white muscle fibre ii. Voluntary and involuntary muscle 2+2
- Q. no.2
- a. Narrate the post mortem changes in muscle that convert it into meat. 6
- b. Write the composition of a typical mammalian muscle. 4
- Q. no. 3
- a. What are the basic considerations for meat cutting? List the wholesale cuts of pig and goat carcass. 3+3
- b. Write about the factors to be considered for the yield grading of meat. 4
- Q. no. 4
- a. Explain hot processing and cold shortening of meat. 3+3
- b. Write about physico-chemical changes during freezing storage of meat. 4
- Q. no. 5 Write short notes on the following: 4 x 2 ½
- i. Water holding capacity ii. Electrical stimulation for tenderization iii. pH of meat iv. Colour of meat

Assignment-4
Course Code: BPVI-024

Total marks: 50

Answer all the questions given below.

- Q. no. 1
- a. Write the advantages of meat processing and classify meat products. 3+3
- b. Define emulsion. Write the purposes of emulsion preparation 2+2
- Q. no.2
- a. List the curing agents. Describe the method of pickle curing. 2+4
- b. Illustrate the series of reactions for development of cured colour of meat. 4
- Q. no. 3
- a. Write the role of any five meat additives in meat processing. 5
- b. Write the factors for reduction of production cost of meat products. List the ingredients used for economic formulation. 5
- Q. no. 4
- a. Give the composition and the flow diagram for sausage preparation. 2+3
- b. Give the steps of canning of meat. 5
- Q. no. 5
- a. Write the importance of enrobing and general steps for preparation of enrobed product. 5
- b. Write short notes on the following: i. Restructured meat product ii. Chunked meat product 5

Assignment- 5
Course Code: BPVI-025

Total marks: 50

Answer all the questions given below.

- Q. no. 1
- a. Classify the packaging materials with examples. 4
- b. Read the packaging and labelling of any one available pre-packaged food product and comment on whether packaging and labelling have been done as per the Food Safety and Standard Regulation (Packaging and labelling). (Reference: <https://archive.fssai.gov.in/home/fss-legislation/fss-regulations.html>) 6
- Q. no.2
- a. Differentiate the following : i. Vacuum and modified atmosphere packaging ii. Bulk and retail packaging. 3+3
- b. How would you like to package fresh meat and frozen meat? 4
- Q. no. 3
- a. Explain the hedonic scale used for sensory evaluation of meat products. 5
- b. Write short notes on any two sensory parameters. 5
- Q. no. 4
- a. Explain the principles of HACCP. 6
- b. What quality assurance practices should be followed at meat retail outlet. 4
- Q. no. 5
- a. Write the steps in cleaning and sanitation of meat premises. Write the properties of a good sanitizer. 3+2
- b. Describe the methods of carcass sanitation. 5

Assignment- 6
Course Code: BPVI-026

Total marks: 50

Answer all the questions given below.

- Q. no. 1
- a. Explain the components of egg and label them in a diagram. 5
- b. Narrate briefly egg grading as per the Indian Standard. 5
- Q. no.2
- a. List the methods used for preservation of egg and explain any two methods. 2+4
- b. Justify the statement-“Eggs have an excellent nutritive value”. 4
- Q. no. 3
- a. Discuss the packaging of egg. 4
- b. List the steps involved in processing of fresh poultry and explain scalding of poultry. 2+4
- Q. no. 4
- a. Narrate the grading of dressed chicken as per Indian standard. 5
- b. How sanitation and hygiene should be followed in a poultry dressing plant? 5
- Q. no. 5
- a. Write short notes on the following: i. Nutritive value of poultry meat ii. Poultry meat preservation by freezing 3+3
- b. Describe the processing methods for any one poultry meat product. 4

Assignment- 7
Course Code: BPVI-027

Total marks: 50

Answer all the questions given below.

Q. no. 1		
a.	Write about the poultry by-products.	5
b.	Briefly narrate the methods of preservation of skin for leather preparation.	5
Q. no.2		
a.	Differentiate the following: i. Edible and inedible by-products ii. Dry and wet rendering.	5
b.	Discuss the steps for processing of animal intestine into casing.	5
Q. no. 3		
a.	List the sections of by-products plant. What should be done to reduce the odour in by-products plant?	2+3
b.	Define rendering. Give the flow diagram for meat-cum bone meal preparation.	2+3
Q. no. 4		
a.	Discuss the processing of gelatine from bone.	5
b.	Write short notes on the following: i. neat's foot oil ii. Utilization of animal glands	5
Q. no. 5		
a.	Write about the production of biogas from meat plant wastes.	4
b.	Narrate the stepwise treatments followed in an effluent treatment plant.	6

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 goat and pig for meat purpose?	5
b.	Write short notes on the following: i. Livestock fair ii. Livestock auction	5
Q. no.2		
a.	Briefly discuss the direct and indirect marketing of meat animals and meat.	6
b.	Define the following: direct cost, fixed cost, marginal cost, total market demand.	4
Q. no. 3		
a.	Calculate the production cost of 1kg chicken sausage assuming that 60 kg emulsion is prepared in a day in the processing unit and 6% flour is used for extension of the product.	10
Q. no. 4		
a.	Discuss briefly the essential entrepreneurial skills.	6
b.	What are the major constraints in food enterprise?	4
Q. no. 5		
a.	What is the purpose of making a business plan? List its key components.	3+2
b.	List the sources for long term finance for your business. List the equipments required in a medium level meat processing plant.	2 ½ + 2 ½