

ASSIGNMENT BOOKLET

DIPLOMA IN MEAT TECHNOLOGY (DMT)



School of Agriculture

Indira Gandhi National Open University

New Delhi - 110068.

2013

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 (Assignment) 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:.....

.....

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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 September
Assignment 3 (BPVI-023) and 4 (BPVI-024)	Before 30 th November
Assignment 5 (BPVI-025) and 6 (BPVI-026)	Before 31 st January
Assignment 7 (BPVI-027) and 8 (BPVI-028)	Before 1 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.1 a) What do you mean by protective foods? (2)
b) Classify carbohydrates. (2)
c) Define essential amino acids. Give examples. (2)
d) Classify lipids and write the industrial uses of lipids. (4)
- Q.2 a) Classify vitamins. Write two functions of each water soluble vitamin. (4)
b) What do hormones play role in lipid metabolism? (3)
c) Write the functions of calcium and diseases associated with its deficiency. (3)
- Q.3 Write short notes on the following: (4x2.5=10)
a) Gastric digestion of protein
b) Bile salt
c) Dietary fibers
d) Food allergy
- Q.4 a) Differentiate between food borne intoxication and food borne infection. (2)
b) How do the external factors affecting the growth of microbes in a food? (5)
c) List the chemical and physical agents for controlling the microbial growth. (3)
- Q.5 a) Write the principles of meat preservation. (4)
b) Write short note on irradiation and low temperature preservation. (6)

Assignment- 2
Course Code: BPVI-022

Total Marks: 50

Answer all the questions given below.

- Q.1 a) Write a short note on livestock market. (2)
b) In your opinion what are the major constraints affecting India's meat export? (3)
c) Write about day to day management of animal for optimum production. (5)
- Q.2 a) Narrate briefly the major components of an abattoir. (5)
b) What points should you consider for selection of the site for a meat plant? (5)
- Q.3 a) What are the basic considerations for transport of meat animals? (4)
b) Write the decision/judgement of ante-mortem examination. (4)
c) What do you mean by stunning? (2)
- Q.4 a) What is meant by Electrical stunning? (2)
b) Why CO₂ anaesthesia is advantageous? (2)
c) Write the steps involved in dressing of pig and goat. (4)
d) List the edible and inedible offals obtained from a slaughter house. (2)
- Q.5 a) Write the condition for which the carcasses are totally condemned. (2)
b) What are the facilities required for post mortem examination of the carcass? (3)
c) Write about the judgment of post mortem examination. (2)
d) Define zoonoses. List the meat borne bacterial zoonotic diseases. (3)

Assignment- 3
Course Code: BPVI-023

Total Marks: 50

Answer all the questions given below.

- Q.1 a) Narrate briefly the structure of skeletal muscle along with a diagram. (8)
b) Differentiate between red and white muscle fibre. (2)
- 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 beef and goat carcass. (2)
b) Write about the factors to be considered for the quality grading. (5)
- Q.4 a) Write short notes on following: (2.5x3=7.5)
i. Water holding capacity
ii. Electrical stimulation
iii. Tenderstretch method for tenderization
b) Differentiate between PSE and DFD meat. (2.5)
- Q.5 a) What do you mean by hot processing of carcass? (3)
b) Write a short note on cold shortening. (2)
c) Write about physico-chemical changes during freezing storage of meat. (3)
d) What are the factors that influence the storage life of refrigerated meat? (2)

Assignment-4
Course Code: BPVI-024

Total Marks: 50

Answer all the questions given below.

- 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: (10)
i. Intermediate moisture meat
ii. Fermentation
iii. Restructured meat
iv. 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: (8)
i. Sausage
ii. Ham
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 given below.

- Q.1 a) Write the functions of a food package? (2)
b) Classify the packaging materials with examples. (5)
c) What is meant by retail and bulk packaging? (3)
- Q.2 a) Write short notes on following: (6)
i. Vacuum packaging
ii. Modified atmosphere packaging
b) How would you like to package fresh meat and frozen meat? (4)
- Q.3 a) Define sensory evaluation. Who can become a sensory panelist for meat products? (4)
b) How would you prepare the meat sample for sensory evaluation? (3)
c) Write a short note on sensory parameters? (3)
- Q.4 a) Narrate the principles of HACCP. (5)
b) Write short notes on following: (5)
i. Quality assurances at kitchen level
ii. Food hygiene
- Q.5 a) Write the steps in cleaning and sanitation of meat premises. (3)
b) Write the properties of a good sanitizer. (2)
c) Describe briefly the methods of carcass sanitation. (3)
d) List the national and international regulatory agencies associated with meat production and marketing. (2)

Assignment- 6
Course Code: BPVI-026

Total Marks: 50

Answer all the questions given below.

- Q.1 a) Explain the structure of an egg with the help of a diagram. (5)
b) Narrate briefly egg grading as per the Indian Standards. (5)
- Q.2 a) Describe the methods of egg preservation. (6)
b) Justify the statement-“Eggs have an excellent nutritive value”. (4)
- Q.3 Write short notes on the following:
i. Egg powder (3)
ii. Packaging of eggs (3)
iii. Nutritive value of poultry meat (4)
- Q.4 a) Write the steps of fresh poultry processing. (5)
b) Narrate briefly the dressed chicken grading as per Indian standards. (5)
- Q.5 a) What are the main features of an automatic poultry dressing line? (3)
b) Write the steps of tandoori chicken preparation. (4)
c) List the factors affecting the tenderness of chicken. (3)

Assignment- 7
Course Code: BPVI-027

Total Marks: 50

Answer all the questions given below.

- Q.1 a) What do you mean by by-products of meat industry? (2)
b) What are the benefits derived from by-product utilization? (5)
c) Write short note on poultry by products. (3)
- Q.2 a) Describe the methods of preservation of skin. (5)
b) Narrate briefly the steps of casing preparation. (5)
- Q.3 a) List the various sections in a by-products processing plant. (3)
b) What will you do for deodorisation in a by-product plant? (2)
c) What do you know about glandular by-products? (3)
d) Write the uses of animal blood in various industries. (2)
- Q.4 a) Give the flow diagram for preparation of bone meal. (4)
b) Give the flow chart for preparation of feather meal. (3)
c) What are the differences between dry rendering and wet rendering? (3)
- Q.5 a) Write about the production of biogas from meat plant wastes. (4)
b) Describe briefly the primary treatment of slaughterhouse effluents. (6)

Assignment- 8
Course Code: BPVI-028

Total Marks: 50

Answer all the questions given below.

- Q.1 a) How will you judge and grade the livestock for meat purpose? (3)
b) What are the prevailing methods of sale of livestock in India? (4)
c) What are the problems in marketing of meat and meat products in India? (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 about Meat Food Product Order, 1973. (5)
- Q.4 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.5 a) Write a note on business plan outline. (5)
b) List the sources for long term finance for your business. (3)
c) List the equipments required in a medium level meat processing plant. (2)