

Roll No.....

M.Tech Food Technology
Semester I Examination, 2024
Paper Title: Meat, Fish and Poultry Technology
Paper Code: MFTC – 103

2024
1st Sem.

Time: 3 Hours

Max Marks 60

Attempt all questions. Marks are mentioned against each question.

Section A

1. Specify the correct answer

(1 x 12)

- (a) Two conditions that develop in meat as a result of long term and short term stress are:
(i) PSA & DFC (ii) PSE & DFD (iii) ABC & DFE (iv) None of these
- (b) Condition of toughening of the muscle of the meat after slaughtering of animal is called
(i) Rigor toughening (ii) Rigor Mortis (iii) Rigor Hardening (iv) Rigor Tightening
- (c) Deposition of fat within the lean muscle is called
(i) Curing (ii) Marbling (iii) Homogenization (iv) None
- (d) Collagen on heating in presence of moisture, dissolves and yields
(i) Alginate (ii) Gelatin (iii) Pectin (iv) Casein

Fill in the blanks

- (e) _____ is the primary factor influencing meat color.
- (f) The post mortem factor that affects the tenderness of meat is _____.
- (g) The primary purpose of stunning methods in modern abattoirs is _____.
- (h) _____ and _____ are proteolytic enzymes used in tenderization of meat.

State true or false

- (i) The microorganism commonly associated with meat spoilage is *Clostridium botulinum*.
- (j) Texture is the key factor in determining the safety of meat products.
- (k) The primary purpose of stunning methods in modern abattoirs is to ensure humane slaughter.
- (l) Broiler is any chicken raised specifically for egg production.

Section B

Answer any four of the following

(6 x 4)

- Q.2 Explain the process of development of rigor mortis. How does it influence meat quality?
- Q.3 Describe the muscle structure and composition in meat, emphasizing the role of proteins in determining meat quality.
- Q.4 Write a note on Smoking of meat.
- Q.5 Discuss the changes that occur in eggs during storage.
- Q.6 Discuss the structure and composition of fish.

Section C

Answer any two of the following

(12 x 2)

- Q.7 Examine the significance of modern abattoirs in ensuring both the quality and safety of meat products. Include a detailed discussion on stunning methods employed and their impact on animal welfare, as well as measures taken to address microbial safety in meat processing.
- Q.8 Explain the process of slaughtering and dressing of Poultry. What are the different pre-slaughter factors which affect the poultry meat quality? Explain. With the help of a flow diagram, specify the CCPs in the poultry processing.
- Q.9 Discuss the process flow chart for preparation of the following:
 - a. Sausages
 - b. Egg powder
 - c. Salami

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CO/PO Mapping

Set 1

	Section A	Section B	Section C
Q 1a-d	CO 1,1,2,2; PO 1,2,1,2		
e-h	CO 1,2,2,1; PO 1,2,1,2		
i-l	CO 2,5,2,4; PO 1,2,1,2		
Q 2-6		CO 1,2,2,4,3; PO: 1,1,1,2,2,	
Q 7-9			CO 5,5,4; PO:4,10,3