

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN FOOD
SCIENCE AND TECHNOLOGY**

ANPT 342: MEAT EDIBLE BY-PRODUCTS PROCESSING

STREAMS: ANPT

TIME:2HOURS

DAY/DATE: THURSDAY 13/04/2023

2.30 P.M. –4.30 P.M.

INSTRUCTIONS

- Answer ALL questions in section A and any TWO questions in section B

Section A: Answer all questions (30 Marks)

1. Explain the characteristics, preparation and storage practices for the following meat by-products (8 marks)
 - a) Liver
 - b) Tripe
 - c) Sweetbreads
2. Discuss the consequences of cellular disruption in fish during mechanical deboning (3 marks)
3. Explain the application of ultrafiltration and reverse osmosis in the processing of animal blood (6 marks)
4. What processing modifications can be carried out in pig slaughter factory to ensure reduction in pollution and thus effective utilization of all by products (5 marks)
5. Discuss the process of making sausage casings from meat by-products (4 marks)
6. Discuss how eggshells can be processed to yield products that are fit for human consumption (4 marks)

Section B: Answer any TWO questions (40 Marks)

7. a) Non-utilization of animal by-products may create a major aesthetic and catastrophic public health problem. Discuss (10 marks)
- b) Discuss the processes involved in the preparation of meat extracts from meat by-products (10 marks)
8. a) Discuss the process of extracting proteins from mechanically deboned poultry residues (10 marks)
- b) Discuss the manufacture of sausages using blood as an ingredient (10 marks)
9. a) Discuss the following methods as they are used in drying blood plasma (12 marks)
- a. Fluidized bed drying
 - b. Spray drying
 - c. Freeze drying
- b) Briefly discuss neat rendering in the context of poultry and fish by products (8 marks)
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