



NATIONAL OPEN UNIVERSITY OF NIGERIA
University Village, Nnamdi Azikiwe Expressway, Plot 91, Cadastral Zone, Jabi, Abuja
Faculty of Agricultural Sciences
September 2020_1 Examination

Course Title: Introduction to Animal Products Processing and Preservation

Course Code: ANP 303.

Credit Unit: 2

Time Allowed: 2Hours

INSTRUCTION:

Answer Compulsory question 1 (25 marks) and any 3 questions (15 marks each)

Question one

- a) State the formula for calculating growth rate 1 mark
- b) Highlight five (5) factors affecting prenatal growth in animals 10 marks
- c) Draw the structure of an egg (5 marks)
- d) Explain the following cooking methods of meat
 - i dry-heat
 - ii moist-heat
 - iii microwave 9 marks

Question two

- a) Explain the term animal products and animal by-products 4 marks
- b) What is Animal Foods 3 marks
- c) Identify eight (8) ways animal by-products of internal origin are used (8marks)

Question three

- a) Define growth and state three phases of growth 4 marks
- b) Highlight five factors influencing postnatal growth (5 marks)
- c) Identify five (5) attributes of prenatal growth (5marks)
- d) What is Accretion 1 mark

Question four

- a) Identify three (3) major drawbacks in freezing meat 3 marks
- b) State the basic principle behind drying as a preservative method 2 marks
- c) mention 4 reasons for processing of modern meat products 4marks
- d) Define Non-comminuted and Comminution products 2marks
 - i. Give two advantages of Comminution 2 marks
 - ii. Give four (4) examples of comminuted meat products 2marks

Question five

- a) Describe the three (3) types of muscle found in animals 9 marks
- b) State three (3) desirable properties of fresh meat. 3marks
- c) Give three (3) reasons for evaluating body composition 3marks

Question six

- a) Mention four (4) items considered in determining the quality of milk 2marks
- b) briefly explain the meaning of Mastitis (4 marks)
- c) Enumerate eight (8) milk products that can be got after processing 4marks
- d) Highlight five (5) importance of somatic cell count 5 marks