



**NATIONAL OPEN UNIVERSITY OF NIGERIA  
FACULTY OF AGRICULTURAL SCIENCES  
DEPARTMENT OF ANIMAL SCIENCES AND FISHERIES  
2023\_1 EXAMINATIONS.**

**Course Title:** Introduction to Animal Products Processing and Preservation

**Course Code:** ANP 303.

**Credit Unit:** 2

**Total Score:** 70 Marks

**Time Allowed:** 2Hours

**INSTRUCTION:**

**Answer Compulsory question 1 (30 marks) and any 2 questions (20 marks each)**

1.
  - a) What do you understand by the term 'Animal products and Animal by-products (6 marks)
  - b) By-products from internal part of the animal are very useful to man, elaborate on eight (8) of these uses (8 marks)
  - c) Postnatal growth may be affected by many factors, discuss any three (3) endogenous factors (6 marks)
  - d) What is the function of somatic cell count in milk quality (4 marks)
  - e) Mr Daniel an intending poultry farmer with special interest in layers, wants you to explain egg production in layers. Write down your explanation to him (6 marks)
  
2.
  - a) The meat value chain consists of sale and production of meat; describe the way this value chain operates in Nigeria (8 marks)
  - b) State the methods you will use to cook your meat (12 marks)
  
3.
  - a) Define the term ovulation (1 mark)
  - b) As a bulk marketer of eggs, how would you preserve, clean, handle and store your eggs. (10 marks)
  - c) Good quality milk must be free of various residues, discuss any three (3) of the residues (9 marks)
  
4.
  - a) Describe the Pasteurization, homogenization and separation processes in milk products production (12 mark)
  - b) Explain the two (2) types of smoking techniques we have (8 marks)