



**NATIONAL OPEN UNIVERSITY OF NIGERIA**  
*University Village, Nnamdi Azikiwe Expressway, Plot 91, Cadastral Zone, Jabi, Abuja*  
**Faculty of Agricultural Sciences**  
*POP Questions 2021\_7836*

**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)**

Question one

- With the help of a labelled diagram, show the structure of an egg (5 marks)
- State five (5) relevance of somatic cell count (5 marks)
- State five (5) ways Mr Sani can use his animal by-products of external origin (5 marks)
- Briefly describe the three (3) types of muscle found in animals (9 marks)
- Mention two (2) types of meats NOT suitable for sun drying (1mark)
- Highlight five (5) characteristics of prenatal growth (5marks)

Question two

- Give an overview of the egg industry in Nigeria (12 marks)
- Briefly describe egg production in chicken (5 marks)
- State the meaning of Mastitis (3 marks)

Question three

- Mrs Asabe discussed with you as an Animal science student that her milk sometimes come with odour: explain to her seven (7) possible causes of flavour and odour problems in milk (7marks)
- Explain the following terms
  - Animal products and animal by-products (4 marks)
  - Slaughterhouse by-products (3 marks)
- Outline three (3) useful indicators of maturity of an animal (6 marks)

Question four

- Outline five (5) factors influencing prenatal growth in animals (10 marks)
- Describe the following cooking methods of meat
  - dry-heat
  - moist-heat
  - microwave (9 marks)
- Mention two (2) ingredients in milk that make it nutritionally valuable (1 mark)