

*NATIONAL OPEN UNIVERSITY OF NIGERIA*

*University Village, Nnamdi Azikiwe Expressway, Plot 91, Cadastral Zone, Jabi, Abuja*

***Faculty Agricultural Sciences***

*Second Semester POP Exam Question November 2018*

**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 (25 marks) and any 3 questions (15 marks each).**

Question one

a) Define the following terms

1. Judging
2. Grading
3. Dairy
4. Rendering
5. Curing
6. Ovulation
7. Oviposition
8. Prenatal growth
9. Postnatal growth
10. Growth

10 marks

b) List the parts of an egg 3marks

c)State six (6) ways of preserving meat 3marks

d) Briefly highlight the structure of major animal products in Nigeria 2marks

e) Enumerate seven (7) characteristics of a good packaging material 7 marks

Question two

a) Briefly explain the three phases of growth 6 marks

b) Define the following terms

i)Hypertrophy 1 mark

ii)Hyperplastia 1 mark

c) c) Outline four (4) factors affecting birth weight and explain them 7 marks

Question three

a) Highlight the characteristics of animal products and animal by-products 4 marks

b) Write short notes on

i) Animal Foods 3 marks

ii) Slaughterhouse by-products 3 marks

c) Give three (3) reasons for evaluating body composition 3marks

d) Give four (4) examples of comminuted meat products 2marks

Question four

a)List and explain the different methods of curing meat 7marks

b) Differentiate between pasteurization and sterilization of meat 4 marks

c) Mention 2 causes of spoilage in animal flesh 1 mark

d)Mention three aspects of judging 3marks

Question five

a) Mention the external and internal factors to be considered in egg quality assessment 5 marks

c) Enumerate four (4) basic nutritional value of milk. 2 marks

d) Outline 4 general methods of preservation, cleaning, handling and storage of egg 8 marks

Question six

a) List 4 items considered in determining the quality of milk 2marks

b) Outline 3 important attributes that make industrial processing of eggs possible 3marks

c) Enumerate 8 milk products that can be got after processing 4marks

d) Outline 5 causes of flavour and odour problems in milk **5 marks**

e) List 2 processes involved in processing of milk 1mark