

**FEDERAL UNIVERSITY OF TECHNOLOGY, OWERRI
DEPARTMENT OF ANIMAL SCIENCE AND TECHNOLOGY
FIRST SEMESTER EXAMINATION 2009/2010 SESSION**

AST 503 – ANIMAL PRODUCTS TECHNOLOGY

INSTRUCTIONS – Answer any five question of your choice

Question No. 1

- a) Distinguish between livestock judging and carcass evaluation.
- b) State four reasons why it is important to evaluate livestock carcasses.
- c) Discuss fully the process of carcass evaluation under the USDA system

Question No. 2

- a) State the importance of the following facilities in livestock slaughter.
 - i) Lairage
 - ii) Hanging rooms
 - iii) Refrigeration/chilling units
- b) Discuss fully and sequentially the post slaughter changes that take place within the muscle following exsanguination.

Question No. 3

- a) In a stepwise manner, state the conditions leading to
 - i) DFD condition
 - ii) PSE condition in meat
- b) Discuss the effect of the pH of meat on its
 - i) Colour
 - ii) Tenderness
 - iii) Water Holding Capacity
 - iv) Flavour

Question No. 4

- a) State the aims of meat inspection.
- b) Explain the judgement categories which animals can be grouped into after ante mortem inspection.
- c) State ten ways of preventing carcass contamination in the abattoir.

Question No. 5

- a) Discuss in details the process of milk synthesis within the alveoli, stating clearly its composition may be influenced by the diet of the cow.
- b) Describe the process and importance of
 - i) Milk pasteurization
 - ii) Sterilization of milk

Question No. 6

With the help of well labelled flow charts, describe the process of

- a) Cheese making
- b) Milking fermentation processes

Question No. 7

- a) With the help of a well labelled diagram, describe the structure of a poultry egg
- b) Discuss the different egg grades under the USDA system

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2008/2009 HARMATTAN SEMESTER EXAMINATIONS

AST 503: ANIMAL PRODUCTS TECHNOLOGY

INSTRUCTION: ANSWER 5 QUESTIONS ONLY

TIME ALLOWED: 3HRS

1. Give reasons why some reject the consumption of animal products, and why many continue to consume animal products.

2. Describe industrial utilization of animal by-products?
 - 3a. Describe the construction and necessity of a lairage in animal slaughter.
 - b. What is humane animal slaughter, and how is it carried out?
 - c. Briefly describe the PSE abnormality in carcasses.

- 4a. List the factors influencing meat colour?
 - b. What is the relationship between meat pH and tenderness?
 - c. Why is carcass classification/grading important?

- 5a. Briefly describe milk synthesis in the mammary gland.
 - b. Present an annual milk production plan for efficient milk productivity?

- 6a. Discuss the processes fresh milk undergo to assure quality and standard.
 - b. Briefly describe how to produce
 - i) Dry milk powder
 - ii) Yoghurt.
 - iii) Cheese
 - iv) Butter.

- 7a. List the names of the various egg grades under the USDA system.
 - b. Describe egg characteristics routinely determined during a scientific research.
 - c. State briefly the different egg products