

FEDERAL UNIVERSITY OF TECHNOLOGY, OWERRI.
SCHOOL OF AGRICULTURE & AGRICULTURAL TECHNOLOGY,
DEPARTMENT OF ANIMAL SCIENCE & TECHNOLOGY
2008/2009 RAIN SEMESTER EXAMINATION

AST 504: CATTLE PRODUCTION

Time Allowed: 3 hours.

INSTRUCTION: ANSWER FIVE QUESTIONS (TWO EACH FROM SECTION A AND B AND 1 FROM SECTION C)

SECTION A: BEEF CATTLE

- 1ai. Make a case for the establishment of a standard Beef Unit in the Teaching and Research Farm
- ii. Enumerate the infrastructural facilities and Equipment required in a Standard Beef Unit of such a T&R farm.
- b. Discuss the constraints of the Tropical environment to Beef Cattle Production and suggest remedies to ameliorate these constraints as well as measures to be adopted to improve performance of indigenous cattle.
- c. Explain the following climatic terms as they relate to animal production;
 - i. Comfort Zone
 - ii. Ambient Temperature.
 - iii. Macro-Climate.
 - iv. Micro-Climate.
 - v. Weather.
- 2a. Make a concise comparison of Beef and Dairy Production under the following
 - i. Requirement for production
 - ii. Aims of Production
 - iii. Management Technology.
- b. Beef Cattle Production has 3 phases. Discuss each phase and state the producer's main objective at each phase.
- c. State the pre-requisite for a profitable feedlot finishing enterprise.

3. Write short notes on the following:
- Characteristics of the Beef Industry.
 - Performance testing as a tool for Beef Cattle Selection.
 - Management practices of Beef Cattle Production in the Tropics.
 - Selection of the Herd bull.

SECTION B: DAIRY CATTLE.

- What are the implications of abruptly changing the feeding routine of a milk cow?
 - Describe schematically ONLY, the 305-day lactation and ideal cow year.
 - Estimate the Metabolisable energy for lactation (M_l), if $EV1 = 0.0386BF + (0.0205SNF - 0.236)$. Where; $BF = 20g/kg$, $SNF = 12.5g/kg$ and $K_l = 0.62$.
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- Why is the single suckling method of calf rearing not suitable in a dairy enterprise?
 - Explain sequentially, the procedure for milking a cow in the restricted suckling method of cow rearing.
 - Estimate the daily dry matter intake (DMI) of a lactating cow weighing 428kg with a milk yield of 12.5kg/day.

SECTION C: HEALTH SECTION

6. Write short notes on any two of the following:
- Streptothricosis (Dermatophilosis)
 - Bovine Virus Diarrhoea (BVD)
 - Verminous pneumonia.
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- Enumerate the advantages and disadvantages of individual stalls as a method for housing dairy cows.
 - Briefly discuss the importance of ventilation in animal production.