



UNIVERSITY OF AGRICULTURE, ABEOKUTA  
COLLEGE OF ANIMAL SCIENCE AND LIVESTOCK PRODUCTION  
DEPARTMENT OF ANIMAL PRODUCTION & HEALTH

Second Semester 2009/2010 Academic Session

APH 508: HATCHERY TECHNOLOGY & MANAGEMENT

Instruction: Answer All the Questions

Time Allowed: 3 hours

1. Write short notes on the following;
  - (a) Precocious mating (5 marks)
  - (b) Sex determination (5 marks)
  - (c) Incubator environmental conditions. (7 ½ marks)
  
2. (a) Explain the effect of the following factors on hatchability in relation to embryonic mortality:
  - (i) Egg turning frequency
  - (ii) Nutrition
  - (iii) Egg shell thickness
  - (iv) Candling
  - (v) Age of breeder(10 marks)
  
- (b) (i) Write short notes on extra embryonic structures (4½ marks)  
(ii) Give two main reasons for sex determination in chicks (3 marks)
  
3. (a) What is CO<sub>2</sub> enhancement kit of a multi-stage incubator and how does it work?(6marks)  
(b) Briefly explain the benefits of CO<sub>2</sub> enhancement kit. (3 marks)  
(c) How would you control temperature fluctuations in case of power outage? (3 marks)  
(d) Differentiate between forced air and still air incubators (3 marks)  
(e) What is data logger? (2½ marks)
  
4. (a) What is incubation? How can you ensure satisfactory development of an embryo into a normal chick? (10 marks)
  
- (b) In the University hatchery mention:
  - (i) Methods used in chick sexing
  - (ii) Temperature and Relative Humidity used
  - (iii) Capacity of each Hatcher
  - (iv) Activities performed in the first room
  - (v) Three uses of hatchery waste. (7½ marks)