



NATIONAL OPEN UNIVESITY OF NIGERIA

Faculty of Agricultural Sciences

Department of Animal Science and Fisheries

2025_2 EXAMINATIONS

Course: ANP306: Physiology of Animal Reproduction and Growth
Credit Unit: 2
Time Allowed: 2 hours.

INSTRUCTIONS: Answer question one (Compulsory: 30 Marks) and any other TWO (20 marks each)

QUESTION 1

- 1a. Define Artificial Insemination.(2 marks)
- 1b. List five advantages of Artificial Insemination.(5 marks)
- 1c. Describe the process of oogenesis.(7 marks)
- 1d. Describe the main stages of the estrous cycle in cattle.(16 marks)

QUESTION 2

- 2a. Identify the environmental factors that affect lactation in dairy cattle.(5 marks)
- 2b. List and briefly explain the functions of three key hormones involved in the regulation of reproduction in female mammals.(15 marks)

QUESTION 3

- 3a. Describe the neuroendocrine regulation of lactation in livestock.(5 marks)
- 3b. Explain the roles of the hypothalamus and pituitary gland in the process described above (3a). (5 marks)
- 3c. Discuss the effects of oxytocin on milk ejection.(5 marks)
- 3d. Describe the stages of spermatogenesis in bulls.(5 marks)

QUESTION 4

- 4a. Define spermatogenesis and outline the main stages involved in this process.(8 marks)
 - 4b. Explain the function of Sertoli cells in spermatogenesis. (6 marks)
 - 4c. Discuss the differences in cognitive functions between vertebrates and invertebrates. (6 marks)
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