



**1<sup>ST</sup> SEM. 2009/2010**

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**UNIVERSITY OF SWAZILAND  
FINAL EXAMINATION PAPER**

**PROGRAMME: BACHELOR OF SCIENCE IN ANIMAL  
SCIENCE II**

**COURSE CODE: APH 306**

**TITLE OF PAPER: REPRODUCTIVE PHYSIOLOGY**

**TIME ALLOWED: TWO (2) HOURS**

**INSTRUCTIONS: ANSWER ANY FOUR (4) QUESTIONS**

**DO NOT OPEN THIS PAPER UNTIL PERMISSION HAS BEEN  
GRANTED BY THE CHIEF INVIGILATOR.**

**QUESTION 1**

- a) Discuss management techniques to reduce the interval to first postpartum estrus in the cow. (15 marks)
- b) Spermatozoa has to undergo two maturation processes in order to be able to fertilize the ovum. Describe the two processes and mention where they occur in the male and female reproductive tracts. (10 marks)

**QUESTION 2**

- a) Describe the components of an Artificial vagina (AV) (5 marks)  
  
In detail explain how semen is collected from a bull using an AV. (15 marks)
- b) Discuss the different methods of pregnancy diagnosis in cattle. Which method is commonly used and why? (10 marks)

**QUESTION 3**

- a) What mechanisms are involved in the transport of spermatozoa out of the testicle during spermatogenesis. (8 marks)
- b) Discuss the blood Testis barriers. (7 marks)
- c) Briefly discuss the factors that affect the postpartum period in the cow. (10 marks)

**QUESTION 4**

- a) Artificial insemination (AI) worldwide is not commonly practised in beef cattle production. Why? Give four reasons. (15 marks)
- b) Describe how bull semen is evaluated, include why, semen evaluation is important. (10 marks)

**QUESTION 5**

Parturition in the cow is divided into three stages. Briefly describe these stages and the events that occur prior to the onset of the parturition process. (25 marks)