

**1<sup>ST</sup> SEM. 2014/2015****PAGE 1 OF 3****UNIVERSITY OF SWAZILAND****FINAL EXAMINATION PAPER**

**PROGRAMME:**            **BSc. IN ANIMAL SCIENCE III: BSc. IN  
ANIMAL SCIENCE (DAIRY OPTION III)**

**COURSE CODE:**        **AS 307**

**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) Describe the levels of Follicle Stimulating hormone, Luteinising hormone, Oestrogen, and Progesterone during the reproductive cycle a cow. What are the functions and sources of these hormones ?

**(15 Marks)**

- b) Discuss the different methods of pregnancy diagnosis in cattle. Which method is commonly used and why ?

**(10 Marks)**

**QUESTION 2**

Discuss the following regarding reproduction in the male:

- a) Puberty **(5 Marks)**  
b) Libido **(15 Marks)**  
c) Scrotal characteristics in relation to thermoregulation **(5 Marks)**

**QUESTION 3**

Describe the mechanism of action of protein and steroid hormones.

**(25 Marks)**

**QUESTION 4**

- a) Spermatozoa has to undergo two maturation processes in order to be able to fertilise the ovum. Describe the two processes and where they occur in the male and female reproductive tracts. **(15 Marks)**

- b) Artificial insemination is not commonly practised in beef cattle commercial ranches in both developed and developing countries. Why is this the case ? **(10 Marks)**

**QUESTION 5**

- a) Describe the key considerations when constructing a semen collection facility. **(15 Marks)**
- b) Discuss 5 factors that influence the post-partum interval to first oestrus in farm animals. **(10 Marks)**