FACULTY	**Health Sciences and Veterinary Medicine**		
DEPARTMENT	**School of Veterinary Medicine**		
SUBJECT	**Veterinary Structure and Function 3 (Paper 2)**		
SUBJECT CODE	**V3681ES**		
DATE	**JUNE 2026**		
DURATION	**3 hours**	**MARKS**	**150**

Examiner: Dr C. Musara

Internal Moderator: Dr F. Chitate

External Moderator: Professor J.P. Chamunorwa

This question paper consists of 3 pages, including this front page.

Instructions

Read the questions carefully
Answer ALL questions
Write clearly and concisely

First Opportunity Examination

ESSAYS (45 Marks)

1. a) Describe the stages of lactation in domestic animals. (12)
   b) List all the hormones involved in control of lactation. (10)
   c) Name three **endocrine** disorders of lactation, stating their causes. (3)

2. Discuss the receptors for taste, highlighting areas of relevance in veterinary practice. (20)

SHORT ANSWERS (80 Marks)

1 Copy and complete the table below (5)

Hormone	**Parent molecule**
Melatonin	
Cortisol	
Thyroxine	
Dopamine	
1,25 Dihydroxycholecalciferol	

2 Name the major hormones responsible for;

   a) Prenatal growth and development (1)

   b) Postnatal growth and development (1)
   c) Closure of growth plates (2)

3. Name two classes of hormones that determine the body's basal metabolic rate and calorigenesis. (2)
4. Describe the actions of glucagon on muscle and adipose tissue. (3)
5. State the functions of the epididymis. (4)
6. Outline the developmental sequence of germ cells in spermatogenesis. (5)
7. Give four methods of pregnancy diagnosis in animals, indicating the relevant species. (4)
8. Indicate the duration of each of the phases of the oestrus cycle in the bitch. (4)
9. Highlight the molecular/physiological basis of Maternal Recognition of Pregnancy (MRP) in domestic animals. (4)
10. State the average gestation periods in sheep and goats. (2)
11. Indicate the therapeutic uses of Oxytocin in animal reproduction. (3)
12. Define dystocia and state the disposition of the foetus that causes dystocia in large animals. (2)
13. Name any two complications that a cow may experience **after** delivery of the foetus. (2)
14. Name the hormones behind the following impending signs of parturition;
    a) Relaxation of the pelvic ligaments (1)
    b) Oedema of the vulva (1)
    c) Oedema of the udder with secretion of colostrum (1)

15. Describe the factors influencing the regeneration of the postpartum endometrium in domestic animals and indicate how they affect resumption of ovarian activity. (5)
16. Write briefly on ototoxicity, giving examples. (5)
17. Name the types of pheromones in animals, indicating their functions. (3)
18. State the ways in which heat is lost from mammals. (5)
19. Explain why general anaesthetics may cause hypothermia. (5)
20. Describe the types of fever caused by the following zoonoses;
    a) Brucellosis (3)
    b) Leptospirosis (2)
21. Briefly discuss the management of fever in animals. (5)

PRACTICAL (25 Marks)

1 a) Explain the therapeutic use of exogenous glucocorticoids in veterinary practice. (10)
  b List the side effects of glucocorticoid therapy. (15)

END OF PAPER