FACULTY	**Health Sciences and Veterinary Medicine**		
DEPARTMENT	**School of Veterinary Medicine**		
SUBJECT	**Veterinary Structure and Function III (Paper 2)**		
SUBJECT CODE	**V3681ES**		
DATE	**JUNE 2025**		
DURATION	**3 hours**	**MARKS**	**150**

Examiner: Dr C. Musara

Internal Moderator: Dr F. Chitate

External Moderator: Prof J.P Chamunorwa

This question paper consists of 2 pages, including this front page.

Instructions

Read the questions carefully Answer
ALL questions
Write clearly and concisely

First Opportunity Examination

ESSAYS (40 marks)

1. a) Describe the secretion and functions of Anti-Diuretic Hormone (Vasopressin). (11)
   b) Explain the pathophysiology of diabetes insipidus (9)

2. Draw a table summarising the hormonal control of parturition. (20)

SHORT ANSWER QUESTIONS (80 marks)

1. List three modes of cellular communication. (3)
2. Draw a flow diagram showing signal transduction for catecholamine hormones. (5)
3. Name two hormones which are released primarily by neural stimulation from the peripheral nervous system. (2)
4. List the indices of chronic stress. (5)
5. Describe the role of glucagon in diabetic ketoacidosis. (5)
6. State the minimum age and weight at first breeding in heifers. (2)
7. Draw a sperm cell and annotate the functions of each component. (4)
8. State three functions of progesterone. (3)
9. State the therapeutic uses of Prostaglandin F2α in reproduction. (2)
10. List the hormones that regulate the estrous cycle. (5)
11. State the gestation periods in;
    a) Dog (1)
    b) Donkey (1)
12. Describe the features of puerperal metritis in the cow. (5)
13. Name the minerals that are present in cow's milk at levels **insufficient** for human nutrition. (4)
14. Describe the synthesis and significance of lactose in milk. (5)
15. Write briefly on Haemolytic Disease of the New-born (Neonatal Isoerythrolysis). (4)
16. Name the structures of the eye that become affected in uveitis. (3)
17. Describe the structure and function of the external auditory canal. (3)
18. Name two conditions of the nose that impair the sense of smell. (2)
19. List the **physiological** defences against cold. (5)
20. Describe the pathogenesis of malignant hyperthermia. (4)

PRACTICAL (30 marks)

1. Give a concise description of the following aspects of fever;
   a) Stages of fever (13)
   b) Positive functions (3)
   c) Negative consequences (3)
   d) Classification (6)
   e) Management (5)

END OF PAPER