



NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF SCIENCE AND TECHNOLOGY EDUCATION

DEPARTMENT OF SCIENCE, MATHEMATICS AND TECHNOLOGY EDUCATION

PST 2138 ANIMAL PHYSIOLOGY

Main Examination Paper

First Semester

NOVEMBER 2024

This examination paper consists of 2 pages

Time Allowed: 3 hours

Total Marks: 100

Special Requirements: None

Examiner's Name: Mr P Moyo

External Examiner: Dr P Manyanga

INSTRUCTIONS

1. Answer **both** questions in section A.
2. Answer **any three** questions in section B.
3. Start each question on a separate page.

MARK ALLOCATION

| QUESTION | MARKS |
|--------------|------------|
| 1. | 20 |
| 2. | 20 |
| 3. | 20 |
| 4. | 20 |
| 5. | 20 |
| 6. | 20 |
| TOTAL | 100 |

Section A

Answer BOTH questions.

1.
 - a. Explain how a nerve impulse crosses a cholinergic synapse. [10 Marks]
 - b. Discuss the role of a synapse in the nervous system. [10 Marks]

2. Describe the electrical activity and structures of the heart involved in its ability to propel blood around the body. (20 Marks)

Section B

Answer any THREE questions.

3. Outline the source and target of hormones produced by the human endocrine system. (20 Marks)

4. Give an outline of the ornithine cycle and describe the removal of its end products from the mammalian body. (20 Marks)

5. Explain the homeostatic functions of the kidney. [20 Marks]

6. Using named examples, describe how the digestive systems of herbivores have been modified to cater for efficient digestion of cellulose. [20 Marks]

END OF QUESTION PAPER