



(University of Choice)

**MASINDE MULIRO UNIVERSITY OF  
SCIENCE AND TECHNOLOGY  
(MMUST)**

**MASTERS**

**UNIVERSITY EXAMINATIONS  
2023/2024 ACADEMIC YEAR**

**FIRST YEAR FIRST Timester EXAMINATIONS**

**FOR THE DEGREE  
OF  
MASTER OF SCIENCE IN NURSING**

**COURSE CODE: NNR 8115**

**COURSE TITLE: ADVANCED PHYSIOLOGY**

**MAIN EXAMINATION**

**DATE: MONDAY 11<sup>TH</sup> DECEMBER, 2023**

**TIME: 8- 11AM**

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**INSTRUCTIONS TO CANDIDATES**

Answer all Questions

TIME: 3 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 2 Printed Pages. Please Turn Over.

1. Name the adrenal cortical hormones (10 marks).
  - a. Describe the actions of glucocorticoids and how its regulated (10 Marks)
  
2. List the hormones that regulate blood glucose level (5 marks).
  - a. Discuss the role of insulin in regulating blood glucose levels (15 mrks)
  
3. Describe how the structure of the small intestine facilitates optimum digestion and absorption of nutrients (20 Marks)
  
4. Mention the stages of Erythropoiesis (10 marks)
  - a. Discuss the factors necessary for erythropoiesis ( 10 mrks)
  
5. Draw the structure of the nephron state the functions of each part (10 marks)
  - a. Describe and explain how the kidney regulates the volume of body fluids (10 Marks)