



*(University of Choice)*

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

**MAIN CAMPUS**

**UNIVERSITY EXAMINATIONS  
2023/2024 ACADEMIC YEAR**

**END OF SEMESTER TWO EXAMINATIONS**

**FOR THE DEGREE OF**

**MASTER OF SCIENCE IN MEDICAL LABORATORY SCIENCES &  
TECHNOLOGY  
(HAEMATOLOGY AND BLOOD TRANSFUSION OPTION)**

**COURSE CODE: BMH 82 1**

**COURSE TITLE: ERYTHROCYTE PATHOLOGY**

**DATE: 8<sup>TH</sup> DECEMBER 2023**

**TIME: 8.00-11.00AM**

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**INSTRUCTIONS TO CANDIDATES:**

**This examination paper contains four questions of 25 marks each. Answer ALL QUESTIONS. Illustrate your answers with labeled diagrams where appropriate.**

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 2 Printed Pages. Please Turn Over

**BMH 821: ERYTHROCYTE PATHOLOGY**

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**QUESTION ONE**

Differentiate the clinically significant Hb SS and Hb SC in sickle cell disease  
(25 marks)

**QUESTION TWO**

Describe polycythemia as a condition in erythrocyte pathology (25 marks)

**QUESTION THREE**

Discuss the causes, risk factors and laboratory diagnosis of aplastic anemia  
(25 marks)

**QUESTION FOUR**

Discuss thalassemia pathophysiology, clinical features and laboratory diagnosis  
(25 marks)