



*(University of Choice)*

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

**MAIN CAMPUS**

**UNIVERSITY EXAMINATIONS  
2021/2022 ACADEMIC YEAR**

**END OF TRIMESTER EXAMINATIONS**

**FOR THE DEGREES  
OF  
MASTER OF MEDICAL LABORATORY SCIENCES & TECHNOLOGY  
(HAEMATOLOGY AND BLOOD TRANSFUSION OPTION)**

**COURSE CODE: BMH 822**

**COURSE TITLE: BLOOD TRANSFUSION AND BLOOD BANK  
SCIENCE**

**DATE: 21/04/2022**

**TIME: 8.00 -11.00 AM**

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**INSTRUCTIONS TO CANDIDATES**

This examination paper contains five questions of 25 marks each. Answer QUESTIONS ONE and any other THREE 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

**QUESTION ONE**

- a) Discuss quality assurance in blood banking (15 marks).
- b) Describe the ABO discrepancies and their mitigation (10 marks).

**QUESTION TWO**

Describe the structure and properties of human antibody classes (25 marks).

**QUESTION THREE**

- a) Describe the factors affecting antigen-antibody reactions in blood banking (15 marks).
- b) Explain the procedures for monoclonal antibody production (10 marks).

**QUESTION FOUR**

Describe transfusion acute and chronic transfusion anomalies (25 marks):

**QUESTION FIVE**

Describe the blood products and components used in transfusion medicine (25 marks).