



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

(MAIN CAMPUS)

**UNIVERSITY EXAMINATIONS (MAIN PAPER)
2021/2022 ACADEMIC YEAR**

FIRST YEAR SECOND SEMESTER EXAMINATIONS

**FOR THE DEGREE
OF
MASTER OF SCIENCE, MEDICAL LABORATORY SCIENCES
(HEMATOLOGY AND BLOOD TRANSFUSION)**

COURSE CODE: BMH 823

**COURSE TITLE: DEVELOPMENTAL AND COMPARATIVE
HAEMATOLOGY**

DATE: 12/01/2022

TIME: 8.00 -11.00 AM

INSTRUCTIONS TO CANDIDATES

This paper is divided into three sections, **A B** and **C**, carrying respectively: Multiple Choice Questions (**MCQs**), Short Answer Questions (**SAQs**) and Long Answer Questions (**LAQs**). **Answer all questions. DO NOT WRITE ON THE QUESTION PAPER.**

TIME: 3 Hours

**MMUST observes ZERO tolerance to examination
cheating**

This Paper Consists of 4 Printed Pages. Please Turn Over

TIME: 3 HOURS

Instructions: Attempt Question 1 and 3 Other Questions.

1. Describe the process of granulopoiesis highlighting the cytokines involved in the regulation of the process. (25 marks)

2. Discuss the events that can lead to the following:
 - a. Neutrophilia (15 marks)
 - b. Neutropenia (10 marks)

3. Describe the process of lymphopoiesis highlighting the cytokines involved in the process. (25 marks)

4. Discuss the events that can lead to the following:
 - a. Monocytosis (15 marks)
 - b. Monocytopenia (10 marks)

5. Describe the process of erythropoiesis and highlight the cytokines and hormones involved in the process. (25 marks)