



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

**UNIVERSITY EXAMINATIONS**

**2021 / 2022 ACADEMIC YEAR**

**MAIN EXAMINATIONS  
MAIN CAMPUS**

**THIRD YEAR SECOND SEMESTER EXAMINATIONS**

**FOR THE DIPLOMA IN APPLIED BIOLOGY**

**COURSE CODE: DSB 047**

**COURSE TITLE: PHARMACOLOGY AND TOXICOLOGY**

**DATE: TUESDAY, 19<sup>TH</sup> APRIL 2022 TIME: 8:00 – 10:00 A.M.**

**INSTRUCTIONS TO CANDIDATES**

Answer ALL QUESTIONS IN SECTION A and any other TWO QUESTIONS IN SECTION B

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating

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

**SECTION A (SHORT ANSWER QUESTIONS, 40 MARKS)**

1. Name five sources of drugs. (5 Marks)
2. List five classes of chemotherapeutic agents. (5 Marks)
3. Illustrate the drug receptor mechanism. (5 Marks)
4. State five different routes of drug excretion. (5 Marks)
5. List five factors that affect inhalation of toxic substances. (5 Marks)
6. Differentiate the following terms;  
(a) Affinity and efficacy (5 Marks)  
(b) Agonist and antagonist (5 Marks)
7. Explain the history of pharmacology. (3 Marks)
8. (a) Differentiate between a toxicant and a toxin. (2 Marks)  
(b) Define the threshold dose. (2 Marks)

**SECTION B (ESSAY QUESTIONS, 30 MARKS)**

9. Describe five routes of drug administration. (15 Marks)
10. Discuss factors that affect drug absorption and bioavailability. (15 Marks)
11. Explain five toxic substances. (15 Marks)