



TECHNICAL UNIVERSITY OF MOMBASA
FACULTY OF APPLIED AND HEALTH SCIENCES
DEPARTMENT OF PURE & APPLIED SCIENCES
UNIVERSITY EXAMINATION FOR:
BTMB
ABT4410: BIOCHEMICAL PHARMACOLOGY
END OF SEMESTER EXAMINATION

SERIES: APRIL 2016

TIME: 2 HOURS

DATE: 10 Mar 2016

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of 5 questions. Attempt question ONE compulsory and any other two questions.

Do not write on the question paper.

Question ONE

- a. Define the following terms
- i) Lead compound **(1mark)**
 - ii) Agonist **(1mark)**
 - iii) Pharmacology **(1mark)**
 - iv) Pharmacokinetics **(1mark)**
 - v) Ligand **(1mark)**
- b. Explain the major types of drug antagonism **(4 marks)**
- c. Draw the chemical structures of the following drugs showing the active sites
- i) Epinephrine **(2 marks)**
 - ii) Norepinephrine **(1marks)**
 - iii) Remikren **(2 marks)**

- d. Distinguish between reversible and irreversible drug interactions (3 marks)
- e. Explain two factors influencing metabolism of drugs (4 marks)
- f. State four advantages of oral route of drug administration (4 marks)
- g. Explain the pharmacological processes (5 marks)

Question TWO

Describe the drug discovery process (20 marks)

Question THREE

Describe biotransformation reactions in drug metabolism (20 marks)

Question FOUR

- i) Describe the classical model of drug distribution and eliminations (10 marks)
- ii) Discuss first order and zero order process in drug absorption and elimination (10 marks)

Question FIVE

- i) Discuss the mechanism of increased blood pressure following angiotensin degradation . (15marks)
- ii) Explain the mechanism of action of Remikren in reduction of blood pressure (5 marks)