

**UNIVERSITY OF KABIANGA**

**UNIVERSITY EXAMINATIONS**

**2014/2015 ACADEMIC YEAR**

**FOURTH YEAR SECOND SEMESTER EXAMINATION**

**FOR THE DEGREE OF BACHELOR OF SCENCE IN BIOCHEMISTRY**

**COURSE CODE: BIO 416**

**COURSE TITLE: BIOCHEMICAL PHARMACOLOGY**

**DATE: 27TH APRIL, 2015**

**TIME: 9.00 A.M-12.00 NOON**

**INSTRUCTIONS TO CANDIDATES:**

Answer **ALL** Questions

**Question One**

1. Define pharmacology. (0.5 mark)
2. Give the difference between pharmacodynamics and pharmacokinetics. (1 mark)
3. Name the various dosage forms and state the advantages and disadvantages of oral dosage forms. (5 marks)

**Question Two**

1. Define a drug. (0.5 mark)
2. What is an essential drug? (1 mark)
3. What are the criteria for calling a drug an essential drug? (3 marks)
4. Site the major routes of drug administration. (4 marks)
5. Explain injection as one of the parental route of drug administration. (6 marks)

**Question Three**

1. Define bioavailability of drugs. (1 mark)
2. Explain the factors affecting drug absorption and its bioavailability. (8 marks)

**Question Four**

1. What is biotransformation? (2 marks)
2. State and explain the reactions which bring about the activation, inactivation or modification of drugs. (8 marks)

**Question Five**

1. State the approaches involved in the launching of a new drug. (3 marks)
2. Write notes on drug screening. (5 marks)

**Question Six**

1. Explain briefly the processes that take place in the transmission of neurotransmitter. (4 marks)
2. State what happens in the pharmacologic modification that takes place when reserpine propranolol are administered? (4 marks)

**Question Seven**

1. Name the drugs used in the treatment of diabetes and state the doses of the oral drugs. (2 marks)
2. Discuss the metabolic functions of insulin. (6 marks)

**Question Eight**

Describe the mechanism of action and pharmacokinetics of chloramphenicol. (6 marks)