

**UNIVERSITY OF KABIANGA**

**UNIVERSITY EXAMINATIONS**

**2015/2016 ACADEMIC YEAR**

**FOURTH YEAR FIRST SEMESTER EXAMINATION**

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

**COURSE CODE: BIO 412**

**COURSE TITLE: FORENSIC AND CLINICAL BIOCHEMISTRY**

**DATE: 10TH DECEMBER, 2015**

**TIME: 2.00 P.M-5.00 P.M**

**INSTRUCTIONS TO CANDIDATES:**

Answer **ALL** questions in **section A** and any other **TWO** in **section B**.

**SECTION A; (40 MARKS)**

1. a) Give three functions of a forensic scientist. (3 marks)

b) What is rhesus system in relation to blood? (2 marks)

c) Name three drugs that cause an increase in creatinine. (3 marks)

 2. a) Give five characteristics of blood that enable it perform its functions. (5 marks)

 b) Give the mode of action of warfarin. (3 marks)

 3. a) Distinguish between direct and indirect coombs test. (5 marks)

 b) Explain alkaline phosphatase as a measure of liver function. (3 marks)

 4. a) Give five properties of a fat soluble vitamins. (5 marks)

 b) Distinguish between conjugated and non-conjugated bilirubin. (3 marks)

 5. a) Give the mode of action of heparin. (3 marks)

 b) Explain blood urea nitrogen test (BUN). (5 marks)

**SECTION B; (30 MARKS**

 6. Explain acid phosphate as a presumptive testing for the presence of seminal fluid in forensic science. (15 marks)

 7. Explain how TLC is used in the identification of drugs in forensic science. (15 marks)

 8. Discuss the causes and general symptoms of microcytic and macrocytic anemia. (15 marks)