

**UNIVERSITY OF KABIANGA**

**UNIVERSITY EXAMINATIONS**

**2013/2014 ACADEMIC YEAR**

**SUPPLIMENTARY/SPECIAL EXAMINATION**

**SECOND YEAR SECOND SEMESTER EXAMINATION**

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

**COURSE CODE: BIO 213**

**COURSE TITLE: BASIC BIOCHEMICAL TECHNIQUES**

**DATE: 18TH SEPTEMBER, 2014**

**TIME: 11.00 A.M-2.00 P.M**

**INSTRUCTIONS TO CANDIDATES:**

Answer **ALL** questions. Total marks (70)

1. Using examples, differentiate between cation exchanger and anion exchanger chromagraphies. (10 marks)
2. Explain ways which can be used to determine the amount of a compound in a given spot on a thin layer of chromatography. (5 marks)
3. Derive the Henderson-Hasselbach equation. (5 marks)
4. State and explain the terms used in defining the properties of a detergent. (5 marks)
5. Explain five protein detection techniques following electrophoresis. (3 marks)
6. Discuss the application of the affinity chromatography in proteomics. (14 marks)
7. Discuss theory, media selection and types of gels used in gel filtration chromatography. (14 marks)
8. Discuss the basic principles and advantages of spectrophotometric techniques. (14 marks)
9. Discuss different methods for detergent removal. (14 marks)