**UNIVERSITY OF KABIANGA**

**UNIVERSITY EXAMINATIONS**

**2014/2015 ACADEMIC YEAR**

**THIRD YEAR SECOND SEMESTER EXAMINATION**

**FOR THE DEGREE OF BACHELOR OF SCIENCE IN MICROBIOLOGY**

**COURSE CODE: MIC 313**

**COURSE TITLE: BACTERIOLOGY**

**DATE: 23/4/2015**

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

**INSTRUCTIONS TO CANDIDATES:**

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

**SECTION A; (30 MARKS)**

**Answer all questions.**

1. Discuss the role of Louis Pasteur in abiogenesis. (3 marks)

2. Differentiate enriched media from enrichment media. (3 marks)

3. Describe how to inoculate slant media. (3 marks)

4. Write short notes on growth factors. (3 marks)

5. Give an account of cell inversion by Salmonella and Shigella. (3 marks)

6. Discuss the mechanism of an action of an antimicrobial agent. (3 marks)

7. State different types of homologous genes explaining why a particular type is necessary in construction of phylogenetic trees. (3 marks)

8. Polyamines is cellular element in bacteria, outline its functions. (3 marks)

9. Write short notes on endotoxins. (3 marks)

10. Outline the stages of acquired syphilis. (3 marks)

**SECTION B; (40 MARKS)**

**Attempt any Two Questions.**

11. Write short notes on bacterial cell wall. (20 marks)

12. Discuss chemical methods of controlling bacteria. (20 marks)

13. a. Discuss the structure of endospore. (8 marks)

b. Discuss characteristics, pathogenesis, clinical features and laboratory diagnosis of *Corinebacteria diptheriae.* (12 marks)

14. a. Outline asceptic techniques. (5 marks)

b. Explain the importance of the components of media. (15 marks)

15. Write short notes on bacteria causing plant disease under the following headings: (20 marks)

a. Pathogenicity

b. Epidemiology

c. Control