



RONGO
UNIVERSITY COLLEGE

(A Constituent College of Moi University)

OFFICE OF THE DEPUTY PRINCIPAL- ACADEMICS AND STUDENTS AFFAIRS

UNIVERSITY EXAMINATIONS
2012/2013 ACADEMIC YEAR

SECOND YEAR FIRST SEMESTER EXAMINATION

FOR

THE DEGREE

IN

**BACHELOR OF SCIENCE IN AGRICULTURAL ECONOMICS AND
RESOURCE MANAGEMENT**

COURSE CODE: MIC 210

COURSE TITLE: GENERAL MICROBIOLOGY

DATE:14/11/2013

TIME:9.00PM-12.00PM.

INSTRUCTIONS TO CANDIDATES

- Answer **ALL** questions in section **ONE** and **TWO** questions in section **TWO**.
- Marks are shown at the end of each question
- Show workings in the answer booklet for award of full marks
- Each question should begin on a fresh page
- Time is 2 hours 30 minutes.

THIS PAPER CONSISTS (3) PRINTED PAGES

PLEASE TURN OVER

SECTION ONE 40 MARKS:

1. (a) State the contribution of the following microbiologists to modern microbiology (2 marks)
- (i) Francis Redi (1 mark)
 - (ii) Louis pastuer (2 marks)
 - (iii) Edward Jenner (2 marks)
 - (iv) Robert Koch (1 mark)
 - (v) Alexander Flemming
- (b) Briefly state Kochs' postulates that proves a microorganism is the causative agent for a disease (3 marks)
- (c) Describe sexual reproduction in
- (i)Fungi (3 marks)
 - (ii)Paramecium (3 marks)
- (d) Explain briefly on bacterial classification based on:
- (i)Morphology (2 marks)
 - (ii)Reaction to gram stain (2 marks)
- (e) Explain the importance of extracellular appendages present in bacteria (4 marks)
2. (a) Differentiate between selective and non selective media (3 marks)
- (b) Briefly explain the factors influencing the ability of an organism to cause disease (3 marks)
- (c) Write short notes on:
- (i) Microaerophiles (1 mark)
 - (ii) Antigens (2 marks)
 - (iii) Differential media (2 marks)
 - (iv) Active immunity (2 marks)
 - (v) Natural flora (2 marks)

SECTION TWO: 30 MARKS

3. Explain and illustrate the bacterial growth curve (15 marks)
4. "Specific and non specific resistance have a role in the control of infectious diseases"
Explain (15 marks)
5. Explain the replication cycle in a bacteriophages (15 marks)