

SOUTH EASTERN KENYA UNIVERSITY

UNIVERSITY EXAMINATIONS 2016/2017

SECOND SEMESTER EXAMINATION FOR THE DEGREES OF BACHELOR OF SCIENCE IN BIOLOGY, BACHELOR OF SCIENCE IN DRY LAND ANIMALSCIENCE, BACHELOR OF SCIENCE IN ENVIRONMENTAL CONSERVATION, BACHELOR OF SCIENCE IN FOOD, NUTRITION & DIETETICS, BACHELOR OF SCIENCE IN DRY LAND AGRICULTURE AND BACHELOR OF SCIENCE IN EDUCATION SCIENCE

SBL 204: GENERAL MICROBIOLOGY

DATE: 18TH APRIL, 2017 TIME: 8.00-10.00 A.M

INSTRUCTIONS TO CANDIDATES

(a) Answer ALL the Questions in Section A

(b) Answer ANY TWO Questions in Section B

(c) Illustrate your answers with well labeled diagrams where appropriate

SECTION A (30 Marks)

1. Briefly describe the prevailing thoughts on the origin of microorganisms between the $17^{th} - 19^{th}$ centuries. (4 Marks)

2. Briefly describe how microbes interact with humans. (4 Marks)

3. List the primary pathogens responsible for nosocomial infections. (3 Marks)

4. Identify the reservoirs of infectious microorganisms. (3 Marks)

5. Draw a well labeled diagram of a bacteriophage. (4 marks)

6. State **four** reasons why aseptic techniques are important in a microbiological laboratory. (**4 marks**)

7. Describe the types of genes mostly associated with multipledrug resistance in bacteria. (4 Marks)

8. List**four** types of media involved in bacterial cultures. (4 Marks)

SECTION B (40 Marks)

9. Discuss the factors that impact microbial growth. (20 Marks)

10. Discuss the impact of retroviruses in animals. (20 Marks)

11. Discuss the structure, function and rearrangement of the flagellum in bacteria.

(20 Marks)

12. Outline the different forms of disease transmission. (20 Marks)