



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2011/2012

**SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR
OF SCIENCE AND BACHELOR OF EDUCATION**

SBT 202: GENERAL MICROBIOLOGY

DATE: Friday, 30th March, 2012

TIME: 11.00 a.m. – 1.00 p.m.

INSTRUCTIONS:

Answer **ALL** questions in Section A and any **ONE** question in Section B. Answers to question in Section A should be concise and should be written in the spaces provided in the question paper.

SECTION A: (5 MARKS EACH)

1. State ONE contribution of the following persons in the evolution of microbiology
 - a) John Needham.
 - b) Martinus Beijerinck.
 - c) Richard Petri.
 - d) Robert Koch.

- e) Watson and Crick.
- 2. Explain various ways in which infections may be acquired in the laboratory.
- 3.
 - a) Distinguish between Indicator and Transport media giving ONE example media in each case.
 - b) Describe the use of anaerobic jar in the laboratory.
- 4.
 - a) Describe bacterial colony characteristics on agar plate.

- b) Outline the technique of preparation of bacterial smear from agar plate.
5.
 - a) Classify bacteria according to air requirements for growth.
 - b) Name three types of energy sources for microbes and give an example microbe of each.

6. State the characteristics of Mycoplasmas and Actinomycetes.

7. Outline the following methods of bacteria enumeration

a) Spread plate.

b) Direct microscopic bacterial count.

8. a) Describe the stages of bacterial spore formation
- b) Draw labeled diagrams showing different flagella arrangements in bacteria.

SECTION B: ESSAY QUESTIONS (30 MARKS EACH).

Answer any **ONE** question in this Section.

1. Discuss methods of reproduction in fungi.
2. Write an essay on disinfectants giving examples and stating their uses.
3. Discuss the control of microorganisms using dry heat and radiations.