



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2020/2021

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF
MASTER OF SCIENCE IN MEDICAL LABORATORY SCIENCE (CLINICAL
CHEMISTRY OPTION)

HML 802: ESSENTIALS OF BACTERIOLOGY

DATE: Monday, 17th May 2021

TIME: 9.00 a.m. - 12.00 p.m.

INSTRUCTIONS:

ANSWER ANY THREE QUESTIONS (30 MARKS EACH)

1. (a) Demonstrate how the activities of biofilm communities result in drug resistance and chronic disease outcomes. (20 marks)
(b) With a diagram of a gram positive and gram negative bacterial cell wall, demonstrate the differences in the chemical structure of these two types of bacterial cell walls. (10 marks)
2. (a) Describe the different methods of microbial culture preservation. (20 marks)
(b) With specific examples, outline the classification of medically important bacteria based on morphology. (10 marks)
3. Identify five areas in the human body where normal bacterial flora are found (non-sterile sites) and in each case, discuss their importance. (30 marks)
4. (a) Discuss four disinfection techniques applied in a bacteriology laboratory. (20 marks)
(b) Describe two different sterilization techniques. (10 marks)