JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF HEALTH SCIENCES

UNIVERSITY EXAMINATION FOR DEGREE OF BACHELOR OF SCIENCE IN COMMUNITY HEALTH AND DEVELOPMENT

2ND YEAR 1ST SEMESTER 2018/2019 ACADEMIC YEAR

KISUMU CAMPUS

COURSE CODE: SBI 3211

COURSE TITLE: BASIC MICROBIOLOGY

DATE: 12/08/2019   **EXAM SESSION: 9.00 – 11.00 AM**

TIME: 2.00 HOURS

Instructions:

1. **Answer ALL Questions in Section A and ANY 2 Questions in Section B**
2. **Candidates are advised not to write on the question paper.**
3. **Candidates must hand in their answer booklets to the invigilator while in the examination room.**

SECTION A: Answer ALL Questions (Total 30 marks)

QUESTION ONE

a.State FIVE modes of action of antimicrobial agents.   (5 marks)

b.List FIVE fields of applied of microbiology and make a genenral statement of the

importance of microorganisms in each field.   (5 marks)

c.list major types of chemical agents used in controlling microbes   (5 marks)

d.Define growth factors, and give example of them.   (5 marks)

e.Name FIVE different staining techniques and describe their particular application. (5 marks)

f.Briefly write short notes on Antony Van Leeuwenhoek.   (5 marks)

SECTION B: Answer ANY TWO Questions (Total 40 marks)

QUESTION TWO

Explain the stages in the population growth curve and its practice importance.   (20 marks)

QUESTION THREE

Define symbiosis and differentiate among mutualism, commensalism, synergism, parasitism and
antagonism, using examples.   (20 marks)

QUESTION FOUR

Describe functional media; list several different categories, and explain what characterizes each type
of functional media.   (20 marks)

QUESTION FIVE

Describe the steps of the Ziehl-Neelson staining, and explain how it can be an important diagnostic
tool for infections.   (20 marks)