



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**SCHOOL OF HEALTH SCIENCES**  
**UNIVERSITY EXAMINATION FOR BACHELORS DEGREE IN COMMUNITY AND**  
**PUBLIC HEALTH**  
**2<sup>ND</sup> YEAR 1<sup>ST</sup> SEMESTER 2017/2018 ACADEMIC YEAR**  
**KISUMU CAMPUS**

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**COURSE CODE:** SBI 3211  
**COURSE TITLE:** BASIC MICROBIOLOGY  
**EXAM VENUE:** STREAM: BSc Community Health & Development/BSc Public Health  
**DATE:** EXAM SESSION:  
**TIME:** 2.00 HOURS

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**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. Draw a labeled diagram of bacterial cell (5mks)
- b. Write short notes on agar (5mks)
- c. Describe ONE experiment that helped to prove biogenesis(5mks)
- d. Define the atmospheric requirement of microaerophilic and obligate aerobic bacteria with examples(5mks)
- e. Describe the role of metals on microbial control (5mks)
- f. Briefly explain the characteristics of viruses (5mks)

**Section B: Answer ANY TWO Questions (Total 40 marks)**

QUESTION TWO

Discuss physical factors influencing microbial growth (20mks)

QUESTION THREE

What are culture media? Classify and discuss them briefly(20mks)

QUESTION FOUR

Discuss the Principle and procedure of Grams staining (20mks)

QUESTION FIVE

Discuss the replication of bacterio-phage(20mks)