



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY  
SCHOOL OF HEALTH SCIENCES**

**UNIVERSITY EXAMINATION FOR DIPLOMA IN COMMUNITY HEALTH AND  
DEVELOPMENT**

**3<sup>RD</sup> YEAR 1<sup>ST</sup> SEMESTER 2018/2019 ACADEMIC YEAR**

**NAMBALE CAMPUS**

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**COURSE CODE: SBI 3211**

**COURSE TITLE: BASIC MICROBIOLOGY**

**EXAM VENUE:**

**STREAM: BSc. PUBLIC HEALTH/COMMUNITY HEALTH AND DEVELOPMENT**

**DATE: EXAM SESSION:**

**TIME: 2 HOURS**

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**Instructions:**

- 1. Answer all the questions in Section 'A' and ANY other two questions in Section 'B' each contain 20 marks**
- 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 THE QUESTIONS IN THIS SESSION (30 MARKS)**

1. Define the following terms: (3 marks)
  - a. Polymorphism
  - b. Trophozoite
  - c. Microaerophils
2. Differentiate between phagocytosis and pinocytosis (2 marks)
3. What does growth in microorganisms mean? (2 marks)
4. Name **FOUR** types of specimens collected for microbiological examination (2 marks)
5. Name the modes of transmission (3 marks)
6. Give **SIX** importance of microbes to our own survival (3 marks)
7. Using diagrams differentiate different bacteria by shape (3 marks)
8. Name some characteristics of viruses? (4 marks)
9. Give **FOUR** differences between bactericidal and bacteriostatic antibiotics? (4 marks)
10. Illustrate the **TWO** major lifecycles of the bacteriophages (4 marks)

**SECTION B: ANSWER ANY TWO QUESTIONS IN THIS SESSION (40 MARKS)**

1.
  - a) What is staining important in microbiology? (3 marks)
  - b) Discuss briefly the gram staining process (7 marks)
  - c) Discuss **FIVE** different forms of sterilization methods (10 marks)
2.
  - a) What is the importance of doing culture in microbiology? (2 marks)
  - b) Discuss forms of culture methods? (8 marks)
  - c) What is the difference between bacterial cell and a fungi cell? (10 marks)
3.
  - a) Discuss ways in which bacteria is classified (10 marks)
  - b) How do antibiotics work on different spectrums of bacteria? (10 marks)
4.
  - a) Discuss how microorganisms are divided based on energy source (10 marks)
  - b) Using a well labelled diagram show how microorganisms grow (10 marks)