



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**SCHOOL OF HEALTH SCIENCES**  
**UNIVERSITY EXAMINATION FOR DEGREE OF BACHELOR OF SCIENCE PUBLIC**  
**HEALTH / COMMUNITY HEALTH AND DEVELOPMENT**  
**2<sup>ND</sup> YEAR 2<sup>ND</sup> SEMESTER 2022/2023 ACADEMIC YEAR**  
**KISUMU CAMPUS**

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**COURSE CODE: HBB 9205**

**COURSE TITLE: MEDICAL BACTERIOLOGY**

**EXAM VENUE:**

**STREAM: (BSc. Comm Hlth & Dev)**

**DATE:**

**EXAM SESSION: DECEMBER 2022**

**TIME: 2.00 HOURS**

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**Instructions:**

- 1. Answer all the questions in Section A and ANY other 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 in this section (30 marks)**

1. Distinguish between
  - a. Endotoxins from exotoxins (2 marks)
  - b. Gram positive and gram negative bacteria (2 marks)
  - c. Sterilization and disinfection (2 marks)
2. List THREE functions of a bacterial capsule (3 marks)
3. Describe THREE characteristics useful in classification and identification of bacteria (3 marks)
4. Explain the beneficial role of resident normal flora in the body (3 marks)
5. Describe THREE factors that contribute to bacterial virulence (3 marks)
6. Briefly explain the activities during lag and log phase of bacterial growth (3 marks)
7. Identify and describe three types of culture media (3 marks)
8. Briefly explain the community health relevance of E.coli (3 marks)

**SECTION B: Answer question ONE (compulsory) and any other question (40 marks)**

1. Discuss the major bacterial diarrheal diseases that affect children under five years of age in developing countries (20 marks)
2.
  - a. Discuss factors that promote the spread of bacterial infections in the community (10 marks)
  - b. Describe the major infection control measures in the hospital environment (10 marks)
3. Discuss FOUR methods that can be used to identify pathogenic bacteria in the laboratory (20 marks)
4. Antimicrobial resistance is a growing public health problem. Discuss. (20 marks)