

**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**SCHOOL OF HEALTH SCIENCES**

**UNIVERSITY EXAMINATION FOR THE BACHELOR OF SCIENCE IN**

**COMMUNITY/PUBLIC HEALTH AND DEVELOPMENT**

**2<sup>ND</sup> YEAR 2<sup>ND</sup> SEMESTER 2018 ACADEMIC YEAR**

**NAIROBI CITY LEARNING CENTRE**

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**UNIT CODE: HCD 3226**

**UNIT COURSE: MEDICAL BACTERIOLOGY**

**STREAM: Bsc. CHD & PH**

**DATE: 06/12/2018**

**TIME: 2 HOURS**

**EXAM SESSION:**

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**INSTRUCTIONS**

1. Answer question ONE (Compulsory) and ANY other Two questions
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

SECTION A: Answer ALL Questions

1. **Briefly define the following terms: (5 Marks)**
  - a. **Prototrophs-**
  - b. **Auxotrophs-**
  - c. **Autotrophs-**
  - d. **Heterotrophs-**
  - e. **Chemoautotrophs**
2. **What are the general characteristics of a bacterial cell? (6 marks)**
3. **List three bacterial growth requirements (3 marks)**
4. **Name and define the types of bacteria according to morphology (4 marks)**
5. **Explain the role of these bacterial structures in pathogenicity (6 marks)**
  - a. **Pili**
  - b. **Capsule**
  - c. **Flagella**
6. **Name and define the three categories of kingdom monera (6 marks)**

SECTION B: Answer ANY TWO questions

1. **Describe the strategies adopted in the prevention and control of bacterial infections (20 marks)**
2. **Explain different approaches used in the identification of pathogenic bacteria (20 marks)**
3. **Discuss the virulence factors associated with bacterial pathogenicity (20 marks)**
4. **Identify FIVE agents used in the control of pathogenic bacterial infections and explain their modes of action and spectrum of activity (20 marks)**