

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

**SCHOOL OF HEALTH SCIENCES
YEAR FIRST SEMESTER EXAMS
SBI 3211: BASIC MICROBIOLOGY**

SECTION A: Answer ALL questions in this section (3 Marks each).

1. Give the difference between prokaryotic and eukaryotic cells
2. Define the following terms;
 - a. Zoonosis
 - b. Vector
 - c. Incubation period
3. List the major groups of fungi.
4. List and briefly describe three mechanism of action of antimicrobial agents.
5. List three methods by which malaria can be transmitted.
6. State the four Koch's postulates.
7. (a) State the mode of infection of Leishmaniasis.
(b) Classify Leishmaniasis by disease manifestation
8. Differentiate between definitive and intermediate host.
9. List six qualities of an ideal microbial agent.
10. Briefly describe the contribution of the following individuals to the field of microbiology
 - a. Edward Jenner
 - b. Anton von Leeuwenhoek
 - c. Louis Pasteur

SECTION B

Answer any TWO questions from this section (20 marks each)

1. Discuss the methods that are used for sterilization.
2. Discuss the different ecological relationships that can be formed by microorganisms.
3. With reference to a particular disease caused by a micro-organism, discuss it's causative agents, clinical picture, treatment, control and prevention strategies.
4. a. Discuss the effects of environmental factors on microbial growth and survival.
b. Discuss the stages in a normal growth curve of bacteria.