



# **MURANG'A UNIVERSITY OF TECHNOLOGY**

## **SCHOOL OF PURE, APPLIED AND HEALTH SCIENCES**

**DEPARTMENT OF PHYSICAL AND BIOLOGICAL SCIENCES**

**UNIVERSITY ORDINARY EXAMINATION**

**2019/2020 ACADEMIC YEAR**

**THIRD YEAR SECOND SEMESTER EXAMINATION FOR BACHELOR OF  
EDUCATION (SCIENCE)**

**ABT 306– INTRODUCTION TO MICROBIOLOGY**

**DURATION:2 HOURS**

**Instructions to candidates:**

1. Answer question One and Any Other Two questions.
2. Mobile phones are not allowed in the examination room.
3. You are not allowed to write on this examination question paper.

**SECTION A: ANSWER ALL QUESTIONS IN THIS SECTION**

**QUESTION ONE (30 MARKS)**

- a) Explain the contribution of Louis Pasteur to microbiology. (5 marks)
- b) Highlight the differences between eukaryotes and prokaryotes. (5 marks)
- c) Describe pasteurization as sterilization technique. (5 marks)
- d) State five (5) different shapes of bacteria. (5 marks)
- e) Describe the general characteristics of fungi. (5 marks)
- f) Briefly explain the classification of viruses (5 marks)

**SECTION B – ANSWER ANY TWO QUESTIONS IN THIS SECTION**

**QUESTION TWO (20 MARKS)**

Draw and discuss the internal and external structures of a bacteria. (20 marks)

**QUESTION THREE (20 MARKS)**

Discuss the safety precautions one should adhere to in a microbiology laboratory. (20 marks)

**QUESTION FOUR (20 MARKS)**

Describe five types of special media that can be used in culturing microorganism in a microbiology laboratory. (20 marks)