



MURANG'A UNIVERSITY OF TECHNOLOGY

SCHOOL OF PURE, APPLIED AND HEALTH SCIENCES

DEPARTMENT OF HEALTH SCIENCES

UNIVERSITY ORDINARY EXAMINATION

2023/2024 ACADEMIC YEAR

THIRD YEAR SECOND SEMESTER EXAMINATION FOR BACHELOR

OF SCIENCE IN MEDICAL LABORATORY SCIENCE

ABT 306 – GENERAL MICROBIOLOGY

DURATION: 2 HOURS

INSTRUCTIONS TO CANDIDATES:

1. Answer question ONE 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 – (30 MARKS) – ANSWER ALL QUESTIONS IN THIS SECTION

QUESTION ONE (30 MARKS)

- a) Briefly describe Germ theory and disease. (5 marks)
- b) Describe the physical methods of sterilization. (5 marks)
- c) Outline reagents to require for Gram staining technique. (5 marks)
- d) Define:
 - i. Aseptic technique (1 mark)
 - ii. Bacteriostatic (2 marks)
 - iii. Sporicidal (2 marks)
- e) Highlight the types of media. (5 marks)
- f) Describe reproduction in fungi. (5 marks)

SECTION B (40 MARKS) – ANSWER ANY TWO QUESTIONS IN THIS SECTION

QUESTION TWO (20 MARKS)

Discuss the bacterial growth curve. (20 marks)

QUESTION THREE (20 MARKS)

Discuss methods used in measurement of population of microorganisms. (20 marks)

QUESTION FOUR (20 MARKS)

Discuss nutritional requirements for microorganism's growth in details. (20 marks)