



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF PURE & APPLIED SCIENCES

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN SCIENCE LABORATORY TECHNOLOGY PAPER 1

AAB2111 : BIOMEDICAL TECHNIQUES - MICROBIOLOGY (DSLT 16S)

END OF SEMESTER EXAMINATION

SERIES: DECEMBER 2016

TIME: 2 HOURS

DATE: 5 Dec 2016

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions

Do not write on the question paper.

Question ONE

(a) Define the following terms

- | | |
|------------------------------|--------|
| I. Microscope | (1mk) |
| II. Sterilization` | (3mks) |
| III. Dispersion staining | (2mks) |
| IV. Fluorescence microscopy | (2mks) |
| V. Scanning probe microscopy | (2mks) |

(b) Explain five characteristic of phototrophic bacteria rhodospirallaes (10mks)

(c) List ten the distinguishing features of spirochetes (10mks)

Question TWO

(a) List and explain application of sterilization in reference to the following areas

- I. Medicine and surgery (5mks)

(b) List and explain two methods of maintaining sterility in a culture media during procedure (10mks)

Question THREE

- a. List four limitations of standard optical microscopy(4mks)
- b. Explain four techniques used to generate contrast in a sample tissue paper(11mks)

Question FOUR

- a. State and explain the functions of different parts of light microscope 15MKS)

Question FIVE

- a. List four fungi of medical importance(4mks)
- b. Outline four differences between an electron and light microscope(4mks)
- c. List and state the functions of culture media component(7mks)