



"Investing in Africa's Future"

**COLLEGE OF HEALTH, AGRICULTURE & NATURAL SCIENCES
DEPARTMENT OF BIOMEDICAL AND LABORATORY SCIENCES
BACHELOR OF MEDICAL LABORATORY SCIENCES HONOURS**

NSLS 205 BACTERIOLOGY PRACTICAL EXAMINATION

END OF SEMESTER EXAMINATIONS

APRIL 2023

LECTURER: Mr G.B HLEREMA

DURATION: 3 HOURS

INSTRUCTIONS

1. Write your candidate number on the answer sheets

2. Use Answer Sheets Provided

3. Begin your answer for Each Question on a New Page

4. Credit is Given for Neat Presentation

Answer all Questions

1 You are provided with a Day 2 culture plate labelled Y from wound swab for laboratory investigations;

- a) Carry out the gram stain to identify possible causative organism for wound and describe in detail your procedures in your booklet. (20)
- b) Mention virulence factors that are associated with two possible organism associated with wound infection (10)
- c) What biochemical tests would you carry out to confirm the identity of two possible organisms for the wound infection (10)

2 You are provided with a urine sample X from a 25 year old female with UTI symptoms for laboratory investigations:

- a) Carry out laboratory investigations identify the causative organism and describe in detail your procedures in your booklet. (20)
- b) Describe the procedure you would carry out on Day 2 of this analysis (10)
- c) What virulence factors are associated with two organisms associated with UTI? (10)

3 You are provided with a slide labelled Z prepared from sample provided by a 25 year old HIV positive woman who has been coughing for the last two weeks.

- a) Analyse the slide and describe your findings. (10)
- b) Describe the cell structure of the organism you identified in (a) above (5)
- c) Describe how HIV worsens the disease condition caused by the bacterial organism you identified in (a) above. (5)