



**AFRICA**  
**UNIVERSITY**  
*A United Methodist-Related Institution*

*“Investing in Africa’s Future”*

**COLLEGE OF HEALTH, AGRICULTURE AND NATURAL SCIENCES**

**DEPARTMENT OF BIOMEDICAL AND LABORATORY SCIENCES**

**BACHELOR OF MEDICAL LABORATORY SCIENCES HONOURS**

**NSLS205: BACTERIOLOGY PRACTICAL**

**END OF SEMESTER EXAMINATIONS**

**NOVEMBER 2025**

**LECTURER: MR Z. CHIWODZA**

**DURATION: 3 HOURS**

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***INSTRUCTIONS***

1. Answer **all** questions in both Sections **A** and **B** on separate answer sheets provided.
2. Mark allocation for each question is indicated at the end of the question.
3. Credit will be given for logical, systematic and neat presentations.

**SECTION A**  
**Answer all questions**

1. You have been provided with a slide labelled **Y**.
  - a) Give the identity of the organism on the slide. **(2 marks)**
  - b) List 4 clinical samples from which we can find the organism. **(4 marks)**
  - c) Name 2 diseases which can be caused by the identified organism. **(2 marks)**
  - d) Give a detailed description of the test and principle that was performed to give the reaction on the slide. **(12 marks)**
  - e) Give a brief description of the limitations of the test you described in d above. **(5 marks)**
  
2. You have been provided with different culture media labeled **A, B, C** and **D** showing the reactions that occurred from a blood culture isolate of a patient with bloody diarrhoea and high grade fever.
  - a) Give the name of the media and the result of the reactions shown in each media. **(4 marks)**
  - b) Describe the biochemical reactions that have occurred to get the result obtained in all of the media you listed above. **(16 marks)**
  - c) What is the possible identity of the organism. **(1 mark)**
  - d) What further tests can you do to correctly identify the organism. **(3 marks)**
  - e) Name a disease that is caused by the organism. **(1 mark)**

**SECTION B**

**Answer all questions**

1. You have been provided with a High Vaginal Swab (HVS) sample labeled **Bo-27-02**.
  - a) Culture the sample on the appropriate culture media. Label with sample ID and your candidate number and place in the incubator for marking. **(15 marks)**
  - b) List 2 possible bacterial causes of a vaginal infection. **(2 marks)**
  - c) Describe the tests you would do on the first day of receiving a HVS sample. **(8 marks)**
  
2. The plate (**Bv-28-24**) provided plate has an isolate from a urine sample.
  - a) Perform the gram test on the isolate and record the results. **(10 marks)**
  - b) Name and perform an additional test that will help you identify the organism. **(5 marks)**
  - c) Record your results and explain the biochemical reactions that occurred during the test. **(10 marks)**

**TOTAL 100 marks**

**THE END**