

**BOWEN UNIVERSITY, IWO**  
**(Of the Nigerian Baptist Convention)**

**COLLEGE OF HEALTH SCIENCES**  
**MEDICAL LABORATORY SCIENCE PROGRAMME**  
**2021/2022 FIRST SEMESTER EXAMINATION**

**MLS 403; HISTOPATHOLOGY 1; TIME: 2HRS**

**INSTRUCTION: ANSWER ANY TWO QUESTIONS FROM EACH SECTION**

**ALL QUESTIONS CARRY EQUAL MARKS**

**SECTION A**

1. a) Define the following terms
    - i. Cell culture (2 marks)
    - ii. Cryopreservation (2 marks)
  - b) Differentiate between finite and continuous cell lines (6 marks)
  - c) List three (3) ways in which cells can be collected for propagation (3 marks)
  - d) List six (6) sources of biological contamination in a cell culture laboratory (6 marks)
  - e) Explain the following:
    - i. Primary culture (2 marks)
    - ii. Cell line (2 marks)
    - iii. Cell strain (2 marks)
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2. a) Define the following terms:
    - i. Kidney disease (2 marks)
    - ii. Azotaemia (2 marks)
    - iii. Uraemia (2 marks)
  - b) List the five stages of chronic kidney disease (5 marks)
  - c) Briefly discuss each of following diseases by stating the definition, prevalence and one test that is used in the diagnosis
    - i. Acute kidney disease (7 marks)
    - ii. Chronic kidney disease (7 marks)
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3. a) List five (5) gastrointestinal (GIT) diseases (5 marks)
  - b) Write a short note on each of four (4) GIT diseases. Your answer should include definitions, clinical features, and laboratory diagnosis (20 marks)

## SECTION B

4. Describe in detail the standard Kaiserling's Method for the preparation of museum specimens (25 marks)
  
5. Write short notes on the following:
  - a. State two (2) Rules that are observed in fixing museum specimens and why they are important (5 marks)
  - b. State three uses of Medical Museum (5 marks)
  - c. List two Chemicals that are used in embalming and state the properties that qualify them for such use (5 marks)
  - d. Differentiate between embalming and plastination (5 marks)
  - e. Describe the properties of Injection points that used in embalming (5 marks)
  
6.
  - a. Describe the steps involved in embalming (5 marks)
  - b. Describe two (2) embalming processes and state the advantages and disadvantages of each (20 marks)