



TECHNICAL UNIVERSITY OF MOMBASA

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School of Applied and Health Sciences  
DEPARTMENT OF PURE AND APPLIED SCIENCES

**UNIVERSITY EXAMINATION FOR:**

BACHELOR OF SCIENCE IN BIOCHEMISTRY

ABC 4305: BIOCHEMISTRY OF SPECIAL ORGANS

END OF SEMESTER EXAMINATION

**SERIES: DECEMBER 2024 SERIES**

**TIME: 2 HOURS**

**DATE: DECEMBER 2024**

**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.**

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**Question One (30 Marks)**

- i. List five common causes of liver diseases (5 Marks)
- ii. State the features of cytochrome P450 (4 Marks)
- iii. Name four tests used to diagnose acute pancreatitis (4 Marks)
- iv. State four biochemical causes of digestive disorders (4 Marks)
- v. State three conditions where creatinine clearance is recommended in kidney function tests (3 Marks)
- vi. Explain how antitubercular drugs cause hepatotoxicity (5 Marks)

vii. Name five contraindications in pulmonary function tests (5 Marks)

## **Question Two (20 Marks)**

Discuss the tests in liver function tests (20 Marks)

## **Question Three (20 Marks)**

(i) Explain the functions of five gastric secretions (10 Marks)

(ii) Discuss the clinically significant components of urine with examples of related diseases (10 Marks)

## **Question Four (20 Marks)**

(i) Describe any seven common skin and soft tissue infections (14 Marks)

(ii) Explain the mechanism of action of cytochrome P450 (6 Marks)

## **Question Five (20 Marks)**

(i) Describe acute kidney injury condition (12 Marks)

(ii) Describe any four neurodegenerative disorders (8 Marks)