



PAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF HEALTH, APPLIED SCIENCES AND NATURAL SCIENCES
DEPARTMENT OF HEALTH SCIENCES

QUALIFICATION: BACHELOR OF MEDICAL LABORATORY SCIENCES	
QUALIFICATION CODE: 08BMLS	LEVEL: 7
COURSE CODE: CLC711S	COURSE NAME: CLINICAL CHEMISTRY 3
SESSION: JULY 2022	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 120

SECOND OPPORTUNITY/SUPPLEMENTARY EXAMINATION QUESTION PAPER	
EXAMINER(S)	DR MUNYARADZI MUKESI
MODERATOR:	PROF GREANIOUS A. MAVONDO
INSTRUCTIONS	
<ol style="list-style-type: none">1. Answer ALL the questions.2. Write clearly and neatly.3. Number the answers clearly.	

THIS QUESTION PAPER CONSISTS OF THREE PAGES (Including this front page)

SECTION A [60 marks]

QUESTION 1

[20 marks]

Fluid accumulation between serous membranes can be a result of either transudates or exudates.

1.1 Briefly explain the immunological basis of exudation. (10 marks)

1.2 Analyse the protein content of exudates, indicating the different protein components and explain their existence. (10 marks)

QUESTION 2

[20 marks]

A 77-year-old patient presented with the following results during a follow up after 7 days of taking Carbamazepine.

Carbamazepine:	20 mcg/mL (4-12)
Albumin:	12 g/L (35-55)
Total protein:	56 g/L (65-85)
Alanine Transaminase (ALT):	1112 U/L (5-45)
Urea:	23.6 mmol/L (2.3-8.5)
Creatinine:	634 µmol/L (60-120)

2.1 Briefly explain the importance of therapeutic drug monitoring in this patient? Motivate your answer. (10 marks)

2.2 Discuss the potential causes of the low albumin in this patient. What other tests would you recommend to establish the cause of the low albumin? (10 marks)

QUESTION 3

[20 marks]

A 23-year-old female has been brought to the laboratory by the police for blood alcohol measurement in a suspected case of drunken driving which resulted in the death of four people. Briefly outline how this sample for blood alcohol analysis should be handled, focussing on the pre-analytic phase.

SECTION B [60 marks]

QUESTION 4

[20 marks]

Describe the physiological control of the exocrine secretion of the pancreas. Demonstrate how this knowledge is applied in the investigation of pancreatic disease.

QUESTION 5

[20 marks]

Give a critical account of the hormonal assessment of infertility in an adult female patient.

QUESTION 6

[20 marks]

Outline the main causes of false negative results during screening for drugs of abuse in patients.

TOTAL 120 MARKS
END OF EXAMINATION