

UNIVERSITY OF CAPE TOWN
STELLENBOSCH UNIVERSITY

MMed Emergency Medicine
Primary examination
Written examination
15 March 2007

Pathology and Pharmacology short answer paper

1300 – 1600

This paper consists of **TEN** short answer questions. All questions are to be answered. Each question is worth 10 marks.

Answer questions in the following books:

Question	Book
1-2	1
2	2
3	3
4	4
5	5
6-7	6
8-9	7
10	8

PATHOLOGY

1.

A 22 year old overweight female enters your Emergency Department and tells you that she has nausea and abdominal pain, and is on HAART. You recognise two of the HAART drugs to be didanosine (ddl) and stavudine (d4T).

- Which two potentially fatal conditions should be considered in this case?
- Name three lab tests that would aid you in your diagnosis.
- Write short notes on the pathophysiology of one of these conditions

2.

You make the diagnosis of acute cardiogenic pulmonary oedema on a patient in your care.

Write short notes on the pathophysiology of this condition, and list 5 possible causes to consider in your differential diagnosis.

3.

Discuss the pathophysiology of Systemic Inflammatory Response Syndrome (SIRS) as it relates to volume loss and fluid replacement.

4.

Outline the sequential pathophysiology of acute thrombus formation as it relates to acute coronary syndrome.

5.

Discuss the pathogenesis of acute bronchospasm.

PHARMACOLOGY

6.

What antidotes are available for common usage in the ED? Detail the mechanism of action of Morphine and its antidote, Naloxone.

7.

Discuss the current indications for Emergency Department use of benzodiazepines, including dose, route of administration and side effects.

8.

Tricyclic antidepressants taken in overdose adversely affect the body due to four major pharmacologic effects. List these effects.

How would you counteract these effects in relation to treatment?

9.

Amiodarone recently replaced lignocaine as the ventricular anti-arrhythmic agent of choice. Compare the actions of each drug.

10.

An adult male presents to your department with a crush injury to his right hand. You decide to control his pain with a wrist block using local anaesthesia.

Discuss the mechanism of action, maximum dose, duration and toxicity of bupivacaine in this case.