

UNIVERSITY OF CAPE TOWN
STELLENBOSCH UNIVERSITY

MMed Emergency Medicine
Primary examination
Written examination
15 March 2007

Anatomy and Physiology short answer paper

0900 - 1200

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
3-4	2
5	3
6-7	4
8-9	5
10	6

ANATOMY

1.

Write short notes on the course of the radial nerve in the arm by relating it to relevant clinical presentations.

2.

Tabulate the muscles that control eye movements, including their action, nerve and vascular supply.

3.

Draw a cross section of the spinal cord with relevant tracts identified. Show on your diagram areas affected by:

- Central cord syndrome
- Anterior cord syndrome
- Brown-Sequard syndrome

4.

Draw and label the major branches of the Circle of Willis.

5.

Describe the structures encountered when doing an emergency antero-lateral (clamshell) thoracotomy in the Emergency Department.

PHYSIOLOGY

6.

In terms of the physics of thermoregulation, name and define the four mechanisms of heat transfer. Give two examples of mechanisms employed by the body for thermoregulation.

7.

Briefly define and explain the relevance of the following laws:

- Boyle's law in terms of aviation medicine
- Dalton's law in terms of aviation medicine
- Henry's law in terms of diving medicine

8.

Write short notes on sodium haemostasis in elderly patients.

9.

Describe the oxyhaemoglobin dissociation curve. Comment on four factors which influence it.

10.

Briefly discuss cerebral blood flow and intracranial pressure autoregulation.