



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2010/2011

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF MASTER OF SCIENCE (SPORT SCIENCE)

HSS 509: PHARMACOLOGY IN EXERCISE AND SPORTS

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DATE: WEDNESDAY 30TH MARCH 2011 TIME: 2.00 P.M. - 5.00 P.M.

INSTRUCTIONS

Answer question 1 and any other TWO questions in separate answer booklets.

1. Explain the action of Nitrites on circulation and their effects at rest and during exercise on Heart Rate, electrocardiograph (ECG), Exercise capacity and Blood pressure and if they have potential to unfairly improve sports performance. (30 marks)
2.
 - a) Analyze the benefits of Calcium Channel anatagonists on a ischemic heart. (14 marks)
 - b) Explain the effects of Non-dihydropyridine Calcium channel antagonists at rest and during exercise on Heart Rate, electrocardiograph (ECG), exercise capacity and blood pressure and if they have potential to unfairly improve sports performance. (6 marks)
3.
 - a) Rationalise the specific aims of antihypertensive therapy. (12 marks)
 - b) Explain the effect of beta blockers therapy at rest and during exercise on Heart Rate, electrocardiograph (ECG), functional capacity and blood pressure. (8 marks)
4. Explain the mechanism of action of Digoxin and its effects in the management of Congestive Heart Failure and its effects at rest and during exercise on Heart Rate, Electrocardiograph (ECG), functional capacity and blood pressure. (20 marks)
5. Explain:
 - a) The mechanism of action of ACE Inhibitors and Blood pressure regulation and the Renin- Angiotensin Axis. (16 marks)
 - b) The effects of ACE inihibitors at rest and during exercise on Heart Rate, electrocardiograph (ECG), functional capacity and blood pressure. (4 marks)