



Faculty of Medicine, University of Ruhuna, Galle
Third Examination for Medical Degrees (part II) – October 2004
Pharmacology – Paper I

2 hours

Tuesday 26th October 2004

Answer all four questions.

Answer each part in a separate book.

Part A

1.0

- 1.1 Describe briefly the toxicology tests that are done in animals when a new drug is developed. (30 marks)
- 1.2 Describe the ethical aspects to be considered when designing and conducting a controlled clinical trial of a drug. (30 marks)
- 1.3 Outline the different mechanisms by which drug interactions can occur inside the body. Give one example for each mechanism. (40 marks)

2.0

- 2.1 Name one drug you would select to treat each of the following conditions. (15 marks)
 - 2.1.1 Atrial fibrillation
 - 2.1.2 Post-partum haemorrhage
 - 2.1.3 Renal colic
- 2.2 Give reasons for your selection in 2.1 including the mechanism of action. (45 marks)
- 2.3 How are the drugs administered? (10 marks)
- 2.4 List the important adverse effects of the drugs mentioned. (30 marks)

Part B

3.0 Explain the pharmacological basis for the use of

- 3.1 Carbimazole in the management of thyrotoxicosis. (30 marks)
- 3.2 Captopril in the management of congestive cardiac failure. (40 marks)
- 3.3 Neomycin in the management of hepatic encephalopathy. (30 marks)

Part C

4.0

- 4.1 **Outline** the different principles of drug treatment during pregnancy and breast feeding. (25 marks)
 - 4.1.1 **Name** three drugs that should be avoided during pregnancy. (15 marks)
 - 4.1.2 **Select** suitable drugs for the following diseases in pregnancy giving reasons.
 - 4.1.2.1 *Plasmodium vivax* malaria (15 marks)
 - 4.1.2.2 Diabetes mellitus (15 marks)
 - 4.1.2.3 Adrenal gland insufficiency (15 marks)
 - 4.1.2.4 Hypertension (15 marks)