

FACULTY OF MEDICINE, UNIVERSITY OF RUHUNA, GALLE
Third Examination for Medical Degrees (Part II) – August 2003
PHARMACOLOGY- Paper I

Tuesday 5th, 2003

2 Hours

Answer all FOUR questions

Answer EACH PART in a SEPARATE BOOK

Part A

- 1.1 Explain the terms pharmacokinetics and pharmacodynamics. (30 marks)
- 1.2 What is meant by half-life of a drug ($t_{1/2}$)? Describe the usefulness of $t_{1/2}$ of a drug. (30 marks)
- 1.3 Describe methods of improving patient compliance to drug therapy. (40 marks)

Part B

- 2.1 Describe the pharmacological basis of using the following drugs.
- 2.1.1 Neuromuscular blocking drugs in general anaesthesia. (30 marks)
- 2.1.2 Angiotensin converting enzyme inhibitors in essential hypertension. (30 marks)
- 2.1.3 Heparin in venous thromboembolism. (30 marks)
- 2.2 List the basic steps in the development of a drug. (10 marks)
-

Part C

- 3 A 45 year old male patient with alcoholic cirrhosis is admitted in a drowsy state, to the casualty medical ward. Examination revealed flapping tremors.
- 3.1 What is the most likely cause of his deterioration of the level of consciousness? (20 marks)
- 3.2 Discuss the therapeutic management of this patient, explaining the pharmacological basis for the use of each drug. (80 marks)

Part D

- 4 Describe the pharmacological basis for the use of the following drugs in the conditions given.
- 4.1 Atropine in organophosphate poisoning, (25 marks)
- 4.2 Aspirin in acute rheumatic fever. (25 marks)
- 4.3 Digoxin in atrial fibrillation (25 marks)
- 4.4 Combined drug therapy in the treatment of pulmonary tuberculosis. (25 marks)