

**UNIVERSITY OF JAFFNA, SRI LANKA**  
**SECOND EXAMINATION FOR MEDICAL DEGREES – PART II**  
**FEBRUARY 2011**

**PHARMACOLOGY Paper II**

**Date: 23.02.2011**

**Time: 2 hours**

**Answer all four questions**

1. Explain:

- 1.1. the rationale for choosing different routes for drug administration taking bronchial asthma as example. (50 marks)
- 1.2. the pharmacokinetic basis for
  - 1.2.1. kernicterus in neonates treated with sulphonamide. (25 marks)
  - 1.2.2. interaction between lithium and thiazide. (25 marks)

2. Explain the pharmacological basis for using

- 2.1. misoprostol in NSAID induced gastric ulcer. (25 marks)
- 2.2. diazepam as anaesthetic premedication. (25 marks)
- 2.3. iodine in the preparation for thyroidectomy. (25 marks)
- 2.4. desferrioxamine in iron overload. (25 marks)

3.

- 3.1. Name 3 different groups of drugs that act on rennin-angiotensin system. (15 marks)
- 3.2. Briefly describe the mechanisms of actions of the drugs mentioned in 3.1. (45 marks)
- 3.3. Name 3 indications for each of the drug group mentioned above. (20 marks)
- 3.4. Mention 5 adverse effects of each of the above-mentioned drug groups. (20 marks)

4. A 20year old boy was admitted to the emergency unit with history of ingestion of a pesticide. He complained of vomiting, abdominal pain, difficulty in breathing and weakness of limbs. On examination he was conscious but, restless, sweaty and the pupils were constricted. His heart rate was 48/ minute and auscultation revealed bilateral rhonchi and coarse crepitations. The diagnosis was made as organophosphate poisoning.

- 4.1. Explain the pharmacological basis for the signs and symptoms in this patient. (60 marks)
- 4.2. Describe the drug treatment of this patient. (20 marks)
- 4.3. Explain the rationale for using the drugs mentioned in 4.2. (20 marks)