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Index number .....

**UNIVERSITY OF RUHUNA- FACULTY OF MEDICINE**  
**THIRD EXAMINATION FOR MEDICAL DEGREES (PART II) –October 2012**  
**PHARMACOLOGY PAPER I new syllabus**

Two and half hours

Answer all questions.

Answer each part in a separate book.

**Part A**

1. Briefly describe the drug treatment of the following conditions, indicating the pharmacological basis for the use of each drug you mention.
  - 1.1 Migraine (40 marks)
  - 1.2 Thyrotoxicosis (60 marks)
2.
  - 2.1 Indicate the pharmacological basis of using
    - 2.1.1 corticosteroids in bronchial asthma. (25 marks)
    - 2.1.2 oral rehydration solution (ORS) in moderate dehydration. (25 marks)
  - 2.2 A 55 year-old woman with type 2 diabetes mellitus was admitted to hospital with nausea and vomiting for two days. She was on insulin to control the diabetes but it was found that her drug compliance was not satisfactory.  
On examination she was afebrile and was found to have respiratory rate of 30 breaths/min, pulse rate of 100/min and blood pressure of 90/60 mmHg. Her investigations revealed random plasma glucose concentration of 453 mg/dL and positive urine ketone bodies.
    - 2.2.1 What is the probable diagnosis of this patient? (5 marks)
    - 2.2.2 List four drugs you would prescribe in the acute management of this patient. (10 marks)
    - 2.2.3 Briefly explain the pharmacological basis of using the drugs you mentioned in 2.2.2. (35 marks)

## Part B

- 3.
- 3.1 Briefly describe the clinically important pharmacokinetics of amioderone. (25 marks)
- 3.2 Explain the pharmacological mechanism of development of hypokalaemia due to thiazide diuretics. (25 marks)
- 3.3. Write notes on
- 3.3.1 controlled clinical trials. (25 marks)
- 3.3.2 principles of drug prescribing drug in pregnancy. (25 marks)
4. Explain the **clinical importance** of following terms using examples.
- 4.1 Adverse drug reactions (20 marks)
- 4.2 Phase I metabolism (20 marks)
- 4.3 Zero order / saturation kinetics (20 marks)
- 4.4 About beta blockers,
- 4.4.1 write the mode of action. (10 marks)
- 4.4.2 list five drugs used in the clinical practice. (10 marks)
- 4.4.3. list four clinical indications. (10 marks)
- 4.4.4. state four contraindications. (10 marks)

## Part C

5. A 60 year-old female with stable angina was referred to the outpatient clinic by her general practitioner due to the failure of controlling symptoms with sublingual glyceryl trinitrate which was used on regular basis. She was not having any other diseases concurrently and was not taking any other drugs.
- 5.1 Name **three** other drugs you would recommend for this patient. (15 marks)
- 5.2 Explain the pharmacological basis for selecting each drug you mentioned in 4.1 (60 marks)
- 5.3 Briefly describe the advice you would give to this patient regarding the treatment you mentioned in 4.1 (25 marks)