



**UNIVERSITY OF RUHUNA- FACULTY OF MEDICINE**  
**THIRD EXAMINATION FOR MEDICAL DEGREES (PART II) - DECEMBER 2011**  
**PHARMACOLOGY PAPER I**

2 ½ HOURS

Time - 9.00 a.m. - 11.30 a.m.

Answer each part in a separate book.

Answer all questions.

**Part A**

1.
  - 1.1 Describe how would you advice to a female who was prescribed a pack of combined oral contraceptive pills. (35 marks)
  - 1.2 Briefly explain the precautions and the contraindications in using combined oral contraceptive pills. (20 marks)
  - 1.3 List the different groups of lipid lowering drugs. (15 marks)
  - 1.4 State the mode of action and clinical indications of lipid lowering drugs you mentioned in 1.3. (30 marks)
  
2.
  - 2.1 Describe the pharmacological basis of using
    - 2.1.1 digoxin in atrial fibrillation. (25 marks)
    - 2.1.2 levodopa and carbidopa in parkinsonism. (25 marks)
    - 2.1.3 heparin in the management of acute coronary syndrome. (25 marks)
  - 2.2. Describe the mode of action of thiopentone. (25 marks)

**Part B**

3. A 70 year- old man with hypertension and ischaemic heart disease presented with severe shortness of breath of 6 hours duration. He gave a history of nocturnal dyspnoea for the last one week. Examination showed elevated JVP, bilateral ankle oedema, central cyanosis and BP of 170/110 mmHg. Crepitations were heard in both lung fields up to the mid zones. Third heart sound was heard over the precordium.
  - 3.1 List **three** drugs that you would use in the acute management of this patient. (15 marks)
  - 3.2 Explain the pharmacological basis of using the drugs you mentioned in 3.1. (45 marks)

- 3.3. List **three** drugs which will be used for the long- term management of this patient giving reasons for your selection. (25 marks)
- 3.4 List the side effects of the drugs you have mentioned in 3.3. (15 marks)

4.

- 4.1 Describe the pharmacological basis for the use of
- 4.1.1 terbutaline in bronchial asthma. (30 marks)
- 4.1.2 atropine in organophosphate poisoning. (30 marks)
- 4.2 Describe the advantages of using preferential or selective COX-2 inhibitors over non selective COX-2 inhibitors as an analgesic. (40 marks)

#### Part C

5. A 55 year-old male (Ex- alcohol abuse) presented to a clinic with bilateral oedema in lower limbs and ascites of two months duration. Ultrasound scan revealed a shrunken liver and splenomegaly. Diagnosis was made as chronic liver disease with portal hypertension.

- 5.1 List **three** drugs which can be used to treat this condition. (15 marks)
- 5.2 Three months later the same patient was seen at the Emergency Treatment Unit with haematemesis and malena. On examination, he was drowsy and detected to have flapping tremors.
- 5.2.1 State **two** drugs which can be used to prevent further bleeding. (10 marks)
- 5.2.2 Briefly discuss the pharmacological basis of using the drugs stated in 5.2.1. (30 marks)
- 5.2.3 State **two** drugs used to prevent further deterioration of level of consciousness. (10 marks)
- 5.2.4 Briefly discuss the pharmacological basis of using the drugs stated in 5.2. ~~4~~ 3 (35 marks)