

29 (P)



Date 9th Sept 2010

9.00 am - 11.00 am

UNIVERSITY OF RUHUNA - FACULTY OF MEDICINE
THIRD EXAMINATION FOR MEDICAL DEGREES PART II - September 2010
PHARMACOLOGY PAPER I

Answer all questions.

Answer each part in a separate book.

Part A

- 1. Write notes on
 - 1.1 steps and principles of drug development. (25 marks)
 - 1.2 adverse-effects of NSAIDs and its effects on renal functions. (25 marks)
 - 1.3 indications, mechanism of action and side effects of metoclopramide. (25 marks)
 - 1.4 educational programme to improve the practice of rational use of medicine. (25 marks)

Part B

- 2. Describe the clinical indications of short acting insulin. (25 marks)
- 2.2 Describe the clinical indications and the mode of action of Lugol's iodine. (25 marks)
- 2.3 Write notes on the precautions you follow before you prescribe combined oral contraceptives and advices you give to a newly married couple. (25 marks)
- 2.4 Indicate the pharmacological basis of using tamoxifen in breast carcinoma. (25 marks)

breast carcinoma -> failed.
 ↑ amount of oestrogen receptors (progesterone and androgen)
 tamoxifen -> anti-oestrogen.

Part C

- A. A 36 year old man with newly detected essential hypertension with a BP of 150/90 mmHg has mildly elevated fasting glucose (135 mg/dL) and total cholesterol of 225 mg/dL.
- B. A 32 year old mother with pregnancy-induced hypertension and BP of 148/92 mmHg in the first trimester of her third pregnancy.

ACE-inhibitor - captopril
 centrally acts. Thiazide
 CaB₂ antagonists, nifedipine, amlodipine
 beta blockers - atenolol.

Methyldopa.
 Direct vasodilators (+)ve combs.
 Hydralazine. Lactation: over sedation.

non-serotonin competitive oestrogen antagonist on target organ.

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C. A 60 year old man presenting with BP of 180/130 mmHg with acute pulmonary oedema and myocardial infarction.

3.1 Select two suitable drugs of different classes for the **three** case scenarios described above. (30 marks)

3.2 Discuss briefly the mechanism of action of six drugs you mentioned in 3.1 (50 marks)

3.3 Indicate three common side effects associated with each drug you mentioned in 3.1 (20 marks)

Part D

4. Describe the mechanism of action, list the clinical indications and adverse effects of the following drugs.

4.1 Morphine

(40 marks)

4.2 Benzodiazepines

(30 marks)

4.3 Chlorpromazine

(30 marks)