



**UNIVERSITY OF RUHUNA – FACULTY OF MEDICINE**  
**ALLIED HEALTH SCIENCES DEGREE PROGRAMME**  
**THIRD BPHARM PART I EXAMINATION - JANUARY 2017**  
**PH 3153 PHARMACOLOGY III (SEQ)**

**TIME: THREE HOURS**

**INSTRUCTIONS**

- Answer **all** questions in the given answer books.
- No paper should be removed from the examination hall.
- Do not use any correction fluid.
- Use illustrations where necessary.

1.

- 1.1 Briefly explain the mechanism of action of sulfonamides using a schematic diagram. (40 marks)
- 1.2 State **four** adverse effects of sulfonamides. (10 marks)
- 1.3 Briefly discuss the pharmacokinetics of methotrexate. (40 marks)
- 1.4 List **two** drug interactions of methotrexate. (10 marks)

2.

- 2.1 Briefly explain the mechanism of action of monobactams. (20 marks)
- 2.2 Briefly discuss the mechanism of resistance for cell wall synthesis inhibitors. (30 marks)
- 2.3 List **four** adverse effects of penicillin. (10 marks)
- 2.4 Briefly explain the pharmacokinetics of cephalosporin. (30 marks)
- 2.5 Give **four** adverse effects of vancomycin. (10 marks)

3.

- 3.1
- 3.1.1 Discuss the uses of purgatives. (25 marks)
- 3.1.2 Compare and contrast ergometrine and oxytocin. (25 marks)
- 3.2
- 3.2.1 List **two** parenteral nutrition preparations. (10 marks)
- 3.2.2 Describe complications occur during IV parenteral nutrition therapy. (40 marks)

4.

- 4.1 List the types of insulin according to the onset of action. (10 marks)
- 4.2 List **four** adverse effects of insulin. (10 marks)
- 4.3 List indications for insulin therapy. (10 marks)
- 4.4 Describe the advices that you would give to a patient who is going to be started on insulin therapy. (70 marks)

5.

- 5.1 Briefly describe the mechanism of action of warfarin. (25 marks)
- 5.2 List **four** indications for warfarin. (10 marks)
- 5.3 List **three** adverse effects of warfarin. (10 marks)
- 5.4 Briefly describe the reason for warfarin being contraindicated during pregnancy. (15 marks)
- 5.4 List **eight** advices you would give to a patient who is going to take warfarin for the first time. (40 marks)

6.

- 6.1 Briefly describe the effects of thyroid hormones on intermediary metabolism. (15 marks)
- 6.2 List **four** signs of hyperthyroidism. (10 marks)
- 6.3 Briefly describe the mechanism of action of propylthiouracil in the treatment of hyperthyroidism. (30 marks)
- 6.4 State the advantages and disadvantages of using radioactive iodine as a treatment for hyperthyroidism. (20 marks)
- 6.5 Over production of calcitonin can lead to hypocalcemia. List **three** drugs that can be used in the management of hypocalcemia. (10 marks)
- 6.6 Briefly describe the functions of parathyroid hormone. (15 marks)

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