



**UNIVERSITY OF RUHUNA – FACULTY OF MEDICINE**  
**ALLIED HEALTH SCIENCES DEGREE PROGRAMME**  
**THIRD BPHARM PART I EXAMINATION – JUNE/JULY 2017**  
**PH 3153 PHARMACOLOGY III (SEO)**

Index no:.....

TIME: THREE HOURS

**INSTRUCTIONS**

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



1. 1.1. Explain the mechanism of action of sulfonamides using a diagram. (30 marks)  
1.2. Explain the pharmacokinetics of sulfonamides. (20 marks)  
1.3. 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)  
2.1.2. Briefly discuss the mechanism of resistance for cell wall synthesis inhibitors. (30 marks)  
2.2. List the types of insulin according to the duration of action. (05 marks)  
2.2.1. List the types of insulin according to the duration of action. (05 marks)  
2.2.2. Write **two** examples for each type mentioned in 2.2.1 above. (10 marks)  
2.2.3. Write **five** indications for insulin. (10 marks)
- 2.3. Describe the pharmacological basis of using warfarin in atrial fibrillation. (25 marks)
3. 3.1. Give **two** examples for each category of laxatives given below. (24 marks)  
3.1.1. Bulk laxatives  
3.1.2. Osmotic laxatives  
3.1.3. Stool softeners  
3.1.4. Stimulants  
3.2. Briefly describe the mechanism of action of stool softeners. (20 marks)  
3.3. List **five** therapeutic uses of laxatives. (15 marks)  
3.4. Name **five** ingredients included in oral rehydration solution (ORS). (10 marks)  
3.5. What is super ORS? (06 marks)  
3.6. Briefly explain how a patient on total parenteral nutrition (TPN) can develop sepsis. (25 marks)

4.

- 4.1. Briefly explain the mechanism of action of clomifene. (30 marks)
- 4.2. List **five** adverse effects of clomifene. (15 marks)
- 4.3. Differentiate between monophasic and multiphasic combined oral contraceptive pills. (15 marks)
- 4.4. List **five** contraindications for combined oral contraceptive pills. (15 marks)
- 4.5. What oral contraceptive pill can be used in situations mentioned in 4.4 above? (05 marks)
- 4.6. What advice will you give a woman who has missed more than two consecutive pills of the combined oral contraceptive pills packer? (20 marks)

5.

- 5.1. State **three** gastric defense mechanisms. (10 marks)
- 5.2. Differentiate benign and malignant peptic ulcer diseases. (10 marks)
- 5.3. Aspirin and celecoxib are Non-Steroidal Anti-Inflammatory Drugs (NSAIDs). Briefly explain why celecoxib appears to cause less stomach bleeding and erosion compared to aspirin. (25 marks)
- 5.4. State **four** approaches to reduce peptic ulcer disease giving **two** examples of drugs for each approach. (20 marks)
- 5.5. Describe the mechanism of action of ranitidine. (25 marks)
- 5.6. List **three** adverse drug reactions of ranitidine. (10 marks)

6.

- 6.1. State **four** causes of anaemia. (10 marks)
- 6.2. Briefly describe the mechanism of action of hydroxocobalamin in the treatment of anemia. (25 marks)
- 6.3. Briefly explain why the parenteral route is used to administer cobalamin in pernicious anaemia. (15 marks)
- 6.4. Classify the synthetic corticosteroids according to their duration of action with **two** examples per each group. (15 marks)
- 6.5. List **four** glucocorticoid antagonists. (10 marks)
- 6.6. Briefly describe the mechanism of action of one drug mentioned in 6.5 above. (25 marks)

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