



UNIVERSITY OF RUHUNA – FACULTY OF ALLIED HEALTH SCIENCES
DEPARTMENT OF PHARMACY

THIRD BPHARM PART I EXAMINATION – APRIL / MAY 2021

PH 3153 PHARMACOLOGY III – SEQ

TIME: THREE HOURS

INSTRUCTIONS

- There are **six** questions in part **A, B** and **C** in this SEQ paper.
- Answer all questions.
- No paper should be removed from the examination hall.
- Do not use any correction fluid.
- Use illustrations where necessary.

PART A

- 01.** Combined oral contraceptive pills are the most common type of oral contraceptives used in the world.
- 1.1 List two categories of combined oral contraceptive pills according to the dose of estrogen and progestin? **(10 marks)**
 - 1.2 Briefly explain the mechanism of action and contraindications / cautions of combined oral contraceptive pills. **(30 marks)**
 - 1.3 Write the followings regarding postcoital contraception. **(20 marks)**
 - 1.3.1 Available hormones
 - 1.3.2 Indications
 - 1.3.3 Duration of effective period
 - 1.3.4 Adverse effects
 - 1.4 A 32-year-old woman who visits the community pharmacy is using combined oral contraceptive pills (28 day pill packs). She forgot to take the pill for the last 3 days. As a clinical pharmacist, describe the instructions that you would provide for this woman. **(40 marks)**

- 02.**
- 2.1 Classify oral hypoglycemic agents according to the mechanism of action. **(10 marks)**
 - 2.2 Briefly explain regarding metformin. **(30 marks)**
 - 2.2.1 Pharmacokinetics
 - 2.2.2 Clinical uses
 - 2.2.3 Adverse effects
 - 2.3 There are a variety of insulin regimens tailored to meet the individual needs of people with diabetes. Briefly describe how you should select the best type for each individual. **(20 marks)**
 - 2.4 Briefly describe benefits of once-daily basal insulin regimen. **(20 marks)**
 - 2.5 Briefly describe about the categories of analogue insulins. **(20 marks)**

- 03.**
- 3.1 Define the terms “anticoagulants”. **(20 marks)**
 - 3.2 Write three steps in mechanism of blood coagulation. **(15 marks)**
 - 3.3 Briefly explain regrading warfarin. **(45 marks)**
 - 3.3.1 Mechanism of action
 - 3.3.2 Therapeutic use
 - 3.3.3 Pharmacokinetics
 - 3.4 Briefly describe mechanism of action of aspirin. **(20 marks)**

04.

- 4.1 List five aminoglycosides available as antibiotics. (10 marks)
- 4.2 Briefly explain regaining aminoglycosides. (30 marks)
 - 4.2.1 Mechanism of action
 - 4.2.2 Mechanism of resistance
 - 4.2.3 Adverse effects
- 4.3 Briefly describe the rationale of combined therapy with gentamycin and penicillin for infective endocarditis. (20 marks)
- 4.4 List different types of penicillin and state two clinical indications for each type of penicillin. (15 marks)
- 4.5. Briefly explain the mechanism of action of β -lactam antibiotics. (25 marks)

PART B

05.

- 5.1 Compare laxatives and purgatives in relevant to their action. (10 marks)
- 5.2 Laxatives are in different types.
 - 5.2.1 Name two bulk laxatives. (05 marks)
 - 5.2.2 Briefly describe mechanism of action of bulk laxatives. (15 marks)
- 5.3 Describe followings regarding lactulose. (40 marks)
 - 5.3.1 Mechanism of action
 - 5.3.2. Adverse effects
 - 5.3.3 Cautions
 - 5.3.4 Contraindications
- 5.4 Write a short note on stimulant laxatives. (30 marks)

PART C

06.

- 6.1 Briefly explain the mechanism of action of glucocorticoids. (30 marks)
 - 6.2
 - 6.2.1 Briefly explain the mechanism of action of nitrogen-containing bisphosphonates. (10 marks)
 - 6.2.2 List four side effects of bisphosphonates. (15 marks)
- 6.3 List two androgens and provide one clinical indication for each androgen. (20 marks)
 - 6.4
 - 6.4.1 Define the term “iodide organification” in thyroid hormone biosynthesis. (10 marks)
 - 6.4.2 List three thioamides used for hyperthyroidism. (15 marks)

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