THE OPEN UNIVERSITY OF SRI LANKA
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF PHARMACY
ACADEMIC YEAR 2018/2019 – SEMSETER I

BACHELOR OF PHARMACY HONOURS
FMU5400 – PHARMACOLOGY II – LEVEL5
FINAL EXAMINATION
DURATION: THREE HOURS

DATE: 06th MARCH 2019 TIME: 9.30 A.M. – 12.30 P.M.

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Part B – 04 SEQs (50 marks)

01.

A 20 years old asthmatic women started new job as a teacher in an urban area and she has recently started to go to a gym. She is currently on salbutamol Metered Dose Inhaler (MDI) 200 micrograms (two puffs) when required.

The pharmacist has noted that she currently uses her inhaler five to six times a day and advised to consult a doctor. She has returned a few days later with a prescription on salbutamol MDI 200 micrograms (two puffs) when required and beclomethasone MDI 50 micrograms (one puff) twice daily.

1.1 List three (03) factors that can trigger asthma condition of this woman (03 marks)

1.2 Briefly explain the pharmacological basis of salbutamol and beclomethasone in the treatment of asthma (14 marks)

1.3 Write three (03) adverse effects of inhaled salbutamol. (03 marks)

1.4 As the pharmacist, what advices you would give when dispensing beclometasone MDI (05 marks)

02.

A 50-year-old female with family history of type 2 diabetes mellitus was presented to a medical practitioner complaining of increased fatigue, thirst and urination over the past couple of weeks with weight loss. She was diagnosed with type 2 diabetes mellitus and metformin IR 500 mg daily dose was prescribed to her. But her hyperglycemic condition was not controlled with metformin. Then medical practitioner added a drug from sulfonylureas class to her treatment plan as follows;

- Metformin 500 mg twice daily
- Gliclazide 30 mg daily

2.1 Write three (03) hyperglycemic symptoms this patient may have experienced. (03 marks)

2.2 Briefly explain the mechanism of action of gliclazide in diabetes mellitus. (10 marks)

2.3 Write two (02) side effects and two (02) contraindications of gliclazide. (04 marks)

2.4 Discuss the appropriateness of concomitant use of metformin and trimethoprim. (08 marks)

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03.

A 30-year-old pregnant woman presents to your pharmacy with a new prescription for cephalexin 500 mg three times a day for one week as she is suffering from urinary tract infection for past 03 days.

3.1 Briefly explain the mechanism of action of cephalexin. (08 marks)

3.2 Name three (03) cephalosporins on each generation. (06 marks)

3.3 What are the advantages of doxycycline over tetracycline in a patient with renal impairment? (05 marks)

3.4 Describe the pharmacological basis of combined use of penicillin and gentamycin. (06 marks)

04.

A 25 years old man with insomnia came to the local pharmacy with a prescription for diazepam 10 mg tablet nocte for a week. After three days of dispensing, he returned with a claim of sleep disturbance.

4.1 Write four (04) indications of diazepam other than insomnia. (04 marks)

4.2 What is the mechanism of action of diazepam in the treatment of insomnia? (10 marks)

4.3 Write four (04) withdrawal symptoms of diazepam. (04 marks)

4.4 Discuss the pharmacokinetic differences of different benzodiazepines. (07 marks)