

**BACHELOR OF PHARMACY HONOURS**  
**FMU4304 – HOSPITAL PHARMACY– LEVEL 4**  
**ACADEMIC YEAR 2018/2019 – SEMESTER II**  
**FINAL EXAMINATION**  
**DURATION: THREE HOURS**



DATE: 27<sup>TH</sup> NOVEMBER 2019

TIME: 09.30 A.M. – 12.30 P.M.

**Part B – SAQs (20 marks)**

01.

1.1 Classify the complete floor stock system of dispensing medications for inpatients and indicate the different methods used by each system. (03 marks)

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1.2 State the best system of dispensing medications for inpatients in the following instances. (03 marks)

Incident	Inpatient medication distribution system
I. Hospitals with an emergency department and operating rooms without pharmacy units	.....
II. Small hospitals with limited manpower requirements and allocated adequate number of competent pharmacists to inpatient department	.....
III. Hospitals which require ward stocks of frequently used medicines and individual patient dispensing to inpatients	.....

1.3 List the two (02) methods of unit dose dispensing in a hospital. (02 marks)

I. ....

II. ....



Index No .....

1.4 Write two (02) advantages of a unit dose dispensing system. (02 marks)

I. ....

II. ....

02.

2.1 List four (04) sterile product types which should be dispensed under aseptic techniques. (02 marks)

I. ....

II. ....

III. ....

IV. ....

2.2 Give three (03) aseptic techniques that you follows as a pharmacist in aseptic compounding. (03 marks)

I. ....

II. ....

III. ....

2.3 Write two (02) importance of aseptic dispensing. (02 marks)

I. ....

II. ....

Index No .....

2.4 Following are disarranged steps in reconstituting a powder for injection in a vial. Write the correct order of the process using numbers 1 to 7 in ascending order. One example is given. (03 marks)

Step		Correct Order
A	Remove the cap of the medication vial and clean the top with an alcohol wipe	
B	Agitate the mixture by rolling the vial	
C	Pull the plunger back on the syringe to the required volume of diluent and inject air into the diluent vial	
D	Remove the cap from the syringe needle	2
E	Remove the cap of the diluent vial and clean the top with an alcohol wipe	
F	Inject the diluent into powdered medication vial	
G	Withdraw the amount of diluent needed	

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**Part C – SEQs (60 marks)****01.**

50-year-old Mr. C.M. Perera was discharged following an ischaemic stroke three months ago. He was readmitted after a second ischaemic attack. It was found that he had not been prescribed with an antiplatelet medicine (aspirin) on discharge after the first attack (ischaemic stroke). This was not noticed by the prescribing doctor, the pharmacists dispensing the medication or the nurse handling the prescription in the hospital where he was treated for the first time.

- 1.1 Write two (02) types of medication errors that occurred in the above case as per the medication use process. (01 marks)
- 1.2 Write four (04) undesirable outcomes of medication errors. (02 marks)
- 1.3 Briefly explain the occurrence of medication errors in the above patient according to the 'Swiss Cheese Model'. (04 marks)
- 1.4 Discuss two (02) potential solutions to minimize medication errors in hospitals. (04 marks)
- 1.5 Explain two (02) safe practices to avoid medication errors by pharmacists. (04 marks)

**02.**

- 2.1 Define rational use of medicines. (01 marks)
- 2.2 Write four (04) adverse impacts of irrational use of medicines. (02 marks)
- 2.3 State four (04) possible reasons for irrational use of medicines. (02 marks)
- 2.4 Discuss two (02) core policies to promote rational use of medicines in Sri Lanka. (04 marks)
- 2.5 Explain two (02) roles of a pharmacist in promoting rational use of medicines in each of the following situations. (06 marks)
  - a. Drug selection in procurement
  - b. Inventory control
  - c. Dispensing

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**03.**

A researcher follows a sample of 400 diabetic patients for 10 years to assess the long term effects of metformin in diabetic patients. 200 patients were taking metformin and rest were on other oral anti-diabetics (without metformin).

- 3.1 What is the study design in above pharmacoepidemiological study? (01 marks)
- 3.2 Justify the reasons for the study design mentioned in 3.1. (02 marks)
- 3.3 Give three (03) advantages and three (03) disadvantages of using the study design mentioned in 3.1. (03 marks)
- 3.4 Briefly explain four (04) roles of pharmacists in pharmacoepidemiology. (04 marks)
- 3.5 Explain two (02) reasons for conducting pharmacoepidemiological studies in each of the following. (05 marks)
- a. Pharmaceutical industry
  - b. Pharmaceutical care

**04.**

- 4.1 What are the core principles of pharmaceutical procurement? (02 marks)
- 4.2 Illustrate the ideal inventory control model of a pharmaceutical product. (02 marks)
- 4.3 Briefly explain three (03) factors to be considered in calculating the reorder quantity for a pharmaceutical product. (03 marks)
- 4.4 Imagine that you are going to start a new pharmaceutical distribution company. Discuss the two (02) major elements that you would consider when designing a distribution system of pharmaceuticals. (04 marks)
- 4.5 Explain two (02) critical elements in the quality assurance for pharmaceutical procurement. (04 marks)