

UNIVERSITY OF JAFFNA, SRI LANKA
BACHELOR OF PHARMACY
SECOND YEAR FIRST SEMESTER EXAMINATION IN BPharmHons 2020
PHACE 2134 PHARMACEUTICS II

Date: 07.06.2022

Time: 2 Hours

Answer all Eight (08) questions.

1. Compare the following dosage forms:
 - 1.1 Tablet and capsule (20 Marks)
 - 1.2 Lotion and liniment. (20 Marks)
 - 1.3 Eye drop and ear drop. (20 Marks)
 - 1.4 Individual powder and bulk powder. (20 Marks)
 - 1.5 Cream and ointment. (20 Marks)

2. Describe the preparations of the following:
 - 2.1 Six (06) drug powders packets and each containing 6 microgram (μg). (30 Marks)
 - 2.2 Find the amount of sodium chloride to be included in 500 mL of a 0.2 % solution of zinc sulphate so that, on dilution with an equal quantity of water, it will be iso-osmotic with tissue fluids. (30 Marks)

Freezing point of 1% w/v solution of zinc sulphate and 1% solution of sodium chloride is -0.086°C and -0.576°C respectively.
 - 2.3 Prepare five hundred milliliter (500 ml) of 27.38 OP (over proof) from ethanol BP. (20 Marks)
 - 2.4 100 g of powder containing 4% of active ingredient (AI) are to be made from powder containing 10% of AI and powder containing 2% of AI. Calculate the amount of powder of each ? (20 Marks)

3. 3.1 Define the terms:
 - 3.1.1 Prescription refill. (5 Marks)
 - 3.1.2 Prescription blank. (5 Marks)
- 3.2 Explain the
 - 3.2.1 parts of the prescription. (60 Marks)
 - 3.2.2 responsibilities of pharmacists when receiving a prescription. (30 Marks)
4. Write short notes on:
 - 4.1 legal requirement of dispensed medicine. (30 Marks)
 - 4.2 solutions: (40 Marks)
 - 4.3 briefly explain how does age affect the dose (30 Marks)
05. Extemporaneous compounding practice are an essential part of pharmacists' competency.
 - 5.1 List the safety measures which must be taken into consideration (15 Marks) when preparing a product extemporaneously.
 - 5.2 Write an account on storage and labelling of extemporaneous (30 Marks) preparations.
 - 5.3 State five(05) types of extemporaneous preparations and their (25 Marks) containers.
 - 5.4 List the ten steps of the dispensing procedure of extemporaneous (30 Marks) preparation.

06. Attention should be given to accurate dosage of medications to avoid the potential source of side-effects and treatment failure.

6.1 Define the following:

6.1.1 Therapeutic dose. (10 Marks)

6.1.2 Dosage regimen. (10 Marks)

6.2 Define the term 'Posology'. (10 Marks)

6.3 Explain the two factors that influence the dose of a drug. (30 Marks)

6.4 Calculate the needed volume to give a child dose 350 mg (40 Marks)
Flucloxacillin IV from a concentration of 500mg in 10mL?

07.

7.1 Briefly explain the pharmaceutical usages of Alcohol (25 Marks)

7.2 Explain the followings:

7.2.1 Absolute Alcohol (10 Marks)

7.2.2 Surgical spirit BP (10 Marks)

7.2.3 Proof spirit (10 Marks)

7.3 Calculate the alcohol content of Surgical spirit BP. (25 Marks)

7.4 Calculate the ethanol 90% v/v in terms of proof spirit (20 Marks)

08. A container closure system must be designed to protect the drug during actual conditions of storage, shipment, use and be able to deliver the correct amount of product at the time of use.
- 8.1 What are the factors considered in selection of the container/s for pharmaceutical packaging? (15 Marks)
- 8.2 Describe the properties of the packaging material used for parenteral products? (30 Marks)
- 8.3 Compare 'primary packaging and secondary packaging of pharmaceuticals'. (30 Marks)
- 8.4 Write an account on 'Repackaging'? (25 Marks)