

**NATIONAL UNIVERSITY OF LESOTHO
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF PHARMACY**

BACHELOR OF PHARMACY (HONOURS)

PHA2400 – INTRODUCTION TO DISPENSING PRACTICE

AUGUST 2023

TIME: 3 HOURS

MARKS 100

INSTRUCTIONS

- **ANSWER ALL QUESTIONS**
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Question 1: Pharmacy history (20 marks)

- a) In pharmacy history, there was also development of documentation of medicines or drugs. Describe the development of documentation of medicines or drugs during pharmacy history. **(10 marks)**
- b) What is the difference between a pharmacist and a pharmacy technician? **(4 marks)**
- c) Mention any six (6) roles performed by today's pharmacist. **(6 marks)**

Question 2: Pharmaceutical formulations (20 marks)

- a) Give examples of how enemas can be used by patients or consumers? **(5 marks)**
- b) Mention two classes of elixirs and explain when they can be used. **(5 marks)**
- c) State the route of administration for the following formulations. **(10 marks)**
 - i. Acetylsalicylic acid effervescent tablet
 - ii. Acyclovir suspension
 - iii. Hydrocortisone acetate rectal suppository
 - iv. Batroban ointment
 - v. Amoxicillin capsules
 - vi. Normal saline nasal drops
 - vii. Tetrahydrozoline eye drops
 - viii. Insulin injection
 - ix. Normal saline infusion fluid
 - x. Antipyrine-Benzocaine ear drops

Question 3: Principles of dispensing and labeling of pharmaceutical products (20 marks)

- a) Collection of medicines is one of the principles of dispensing.
 - i. Where does a pharmacist or pharmacy technician collect medicines? **(2 marks)**
 - ii. Which interventions should a pharmacist or pharmacy technician take into consideration during collection of medicines to decrease dispensing errors? Give one (1) example for each intervention. **(8 marks)**
 - iii. Why should pharmaceutical formulation be labelled during the dispensing process? **(2 marks)**

- iv. List details that should appear on the label of a dispensed medicine. **(8 marks)**

Question 4: Communication skills (20 marks)

- a) What is non-verbal communication? **(1 mark)**
- b) You are a pharmacist talking to a teenage girl who has a sexually transmitted disease about the importance of taking her medication, using condoms, and encouraging her partner(s) to come to the clinic for testing. All of a sudden, she is restless and uncomfortable with the topic.
- i. What does her restlessness and discomfort imply to you? **(2 marks)**
- ii. What will you do in this case? **(2 marks)**
- c) Effective communication between pharmacists and patients or family members is extremely important to pharmaceutical care. Mention problems that may result due to ineffective communication between pharmacists and patients cause. **(3 marks)**
- d) List any four (4) internal factors influencing patient communication. **(4 marks)**
- e) Why is it important for you as a pharmacist to have good listening skills? **(2 marks)**
- f) You are dispensing medication to a patient. Outline the process of how you will apply your good listening skills. **(6 marks)**

Question 5: Dispensing calculations (20 marks)

- a) Vioxx is available as 7.5mg/tablet. The doctor's order reads "1 tablet 3 times daily for 4 weeks." How many tablets should be dispensed? **(NB: SHOW YOUR CALCULATIONS)** **(2 marks)**
- b) Prednisone capsules 5mg/capsule are available. A medication order reads "5mg 3 times a day for 1 week, then 5mg twice daily for the next week, and 5mg once daily for another week and finally, 1mg/day for 10 days." How many capsules should be dispensed? **(NB: SHOW YOUR CALCULATIONS)** **(4 marks)**
- c) Using a vial containing 300,000 units of penicillin G sodium, how many milliliters should be added to the dry powder in preparing a solution having a concentration of 25,000 units/mL? **(NB: SHOW YOUR CALCULATIONS)** **(2 marks)**

- d) A medication order for theophylline oral suspension for a patient to be taken in doses of 1 teaspoonful 3 times a day for 5 days, and then 1 teaspoonful 2 times a day for 2 days. How many milliliters of the suspension should be dispensed to provide the quantity for the prescribed dosage regimen? **(NB: SHOW YOUR CALCULATIONS) (2 marks)**
- e) A pharmacist receives a medication order to prepare different concentrations of penicillin G sodium to be added to 1000mL of D5W, using stock vials of 1, 000, 000 units of penicillin G sodium. The instructions on the vials of penicillin G sodium stated, “Add 4.6mL of sterilized water for a concentration of 2.5×10^5 units/mL.” How many milliliters of the reconstituted solution must be added to the D5W to provide the following units of penicillin G sodium in the final preparation? **(NB: SHOW YOUR CALCULATIONS)**
- i. 4×10^5 units **(2 marks)**
 - ii. 5×10^5 units **(2 marks)**
- f) Dexamethasone is available in 2mg-tablets. A medication order reads “2mg 3 times a day for 1 week, then 2mg twice a day for the next week, then 2mg once/daily for another week and finally, 1mg/day for 10 days.” How many tablets should be dispensed? **(NB: SHOW YOUR CALCULATIONS) (4 marks)**
- g) Calculate the IV flow rate for 1000mL D5W to run for 12 hours. The drop factor is 60gtt/mL. Solve the problem using formula method. **(NB: SHOW YOUR CALCULATIONS) (2 marks)**