

**UNIVERSITY OF RUHUNA – FACULTY OF ALLIED HEALTH SCIENCES****DEPARTMENT OF PHARMACY****SECOND BPHARM PART I EXAMINATION – MAY/JUNE 2026****PH 2114 PHARMACEUTICS IIA – SEQ****TIME: THREE HOURS****INSTRUCTIONS**

- There are six questions in parts 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

- 1.1 Define the term “emulsion”. (10 marks)
 - 1.2 List five types of tests used to identify an emulsion. (20 marks)
 - 1.3 Briefly describe five advantages of an emulsion dosage form. (20 marks)
 - 1.4 State five desirable properties of an emulsifying agent. (20 marks)
 - 1.5 Briefly explain the continental or dry gum method used in the preparation of an emulsion. (30 marks)
- 2.1 Write four types of bulk powders for external use. (20 marks)
 - 2.2 Mention two advantages and one disadvantage of the powder dosage form. (15 marks)
 - 2.3 Briefly describe levigation method in particle size reduction. (15 marks)
 - 2.4 List five methods used for mixing powders. (20 marks)
 - 2.5 Describe the procedure for preparing divided powders. Give appropriate examples where necessary. (30 marks)

PART B

- 3.1 List five types of ingredients used in otic preparations and give one example for each ingredient. (10 marks)
- 3.2.1 List four different routes of ocular drug administration. Write one advantage and one disadvantage of each route. (20 marks)
- 3.2.2 Briefly describe the characteristics of five different ophthalmic dosage forms. (30 marks)
- 3.2.3 Describe two key formulation considerations involved in the development of ophthalmic preparations. (20 marks)
- 3.3 Briefly explain the physicochemical properties of drugs that influence nasal absorption. (20 marks)

4.

- 4.1 List five advantages of rectal suppositories. (10 marks)
- 4.2 Name three types of suppository bases. Give one example for each. (10 marks)
- 4.3 Describe the preparation of suppositories by the molding method. (30 marks)

PART C

- 4.4 List four advantages of transdermal drug delivery systems. (20 marks)
- 4.5 State three components of a transdermal patch and write the specific function of each. (15 marks)
- 4.6 Briefly describe the structural features of the reservoir system of transdermal patches. (15 marks)

5.

- 5.1 Define monophasic liquid dosage forms. (10 marks)
- 5.2 State three advantages of oral pharmaceutical solutions in patient care. (15 marks)
- 5.3 Explain the role of co-solvents in monophasic liquid formulations and give three examples of co-solvents used in pharmaceutical formulations. (20 marks)
- 5.4 Compare syrups and elixirs with respect to composition, formulation characteristics, and pharmaceutical use. (25 marks)
- 5.5 A pharmaceutical company intends to develop a sugar-free pediatric oral liquid containing a poorly water-soluble and oxidation-sensitive drug. Justify the selection of vehicle, solubility-enhancement method, excipients, preservation system, and packaging requirements. (30 marks)

6.

- 6.1 Define surgical dressings. (10 marks)
- 6.2 State three essential functions of an ideal wound dressing in wound management. (15 marks)
- 6.3 Differentiate between primary and secondary wound dressings. Give one suitable example of each. (20 marks)
- 6.4 Discuss the characteristics of absorbable and non-absorbable suture materials. (25 marks)
- 6.5 Catgut has been widely used as an absorbable suture material. Critically evaluate its advantages and limitations. Discuss situations where synthetic absorbable sutures may be preferred. (30 marks)

@@@@@@@@