



UNIVERSITY OF RUHUNA – FACULTY OF MEDICINE

ALLIED HEALTH SCIENCES DEGREE PROGRAMME

SECOND BPHARM PART 1 EXAMINATION - JULY 2013

PH 2114 – PHARMACEUTICS IIA (SEQ)

TIME: 9.00a.m- 12.00 noon

INSTRUCTIONS

- No paper should be removed from the examination hall.
- Do not use any correction fluid.
- Please use separate answer booklets.

Answer all the questions.

01.

1.1 Describe briefly the disadvantages of powders as a dosage form. **(25 marks)**

1.2

1.2.1 What is granulation? **(05 marks)**

1.2.2 Describe dry granulation using relevant diagrams. **(20 marks)**

1.2.3 Compare and contrast the powders and granules. **(20 marks)**

1.2.4 Describe briefly the reasons for granulation. **(30 marks)**

02.

2.1 Explain the followings.

2.1.1 Different types of emulsions **(20 marks)**

2.1.2 Tests used to identify emulsion types **(20 marks)**

2.1.3 Methods used to prepare an emulsion **(30 marks)**

2.2

2.2.1 List out the advantages of a suspension as a dosage form. **(10 marks)**

2.2.2 Explain the method used to prepare a suspension containing an in-diffusible solid. **(20 marks)**

03.

3.1

3.1.1 List the advantages and disadvantages of transdermal drug delivery system.

(20 marks)

3.1.2 Explain briefly the membrane moderated transdermal drug delivery system.

(30 marks)

3.2 Describe briefly the followings.

- 3.2.1 Absorption bases used for topical ointments (15 marks)
- 3.2.2 Fusion method of preparing ointments (15 marks)
- 3.2.3 Paste as a topical dosage form (20 marks)

04.

4.1

- 4.1.1 List out the characteristics of an ideal suppository base. (15 marks)
- 4.1.2 Explain briefly **two** physicochemical properties of synthetic/semisynthetic suppository bases. (20 marks)

4.2

- 4.2.1 Discuss briefly the **three** main ways of maximizing systemic availability of drugs administered nasally. (30 marks)
- 4.2.2 List out **five** physicochemical properties of a drug candidate used for nasal preparation. (10 marks)
- 4.2.3 Explain briefly **two** of above mentioned physicochemical properties. (25 marks)

05.

- 5.1 Define the term solubility. (10 marks)
- 5.2 How can you increase the solubility of a compound in a solution? (20 marks)
- 5.3 Discuss the advantages and disadvantages of a solution as a dosage form. (20 marks)
- 5.4 Solutions that are intended for oral use may contain additional ingredients.
 - 5.4.1 Name **five** such ingredients. (10 marks)
 - 5.4.2 Stating suitable examples, explain briefly the purpose of adding each ingredient. (40 marks)

06.

6.1

- 6.1.1 Define the terms 'sutures and ligatures'. (10 marks)
- 6.1.2 Compare and contrast the absorbable sutures and non absorbable sutures. (20 marks)
- 6.1.3 Describe the labeling requirements of surgical catgut. (20 marks)

6.2.

- 6.2.1 List the components of blood. (10 marks)
- 6.2.2 Explain briefly the followings.
 - 6.2.2.1 Vaccines (20 marks)
 - 6.2.2.2 Natural allergen extracts (20 marks)

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