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UNIVERSITY OF RUHUNA – FACULTY OF MEDICINE

ALLIED HEALTH SCIENCES DEGREE PROGRAMME

SECOND BPHARM PART 1 EXAMINATION - JANUARY 2015

PH 2114 – PHARMACEUTICS IIA (SEQ)

TIME: THREE HOURS

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.

- 1.1 List **five** factors that to be considered in selecting a suitable solvent for a non- aqueous solution. (10 marks)
 - 1.2 Briefly describe **six** different non- aqueous solvents that can be used in pharmaceutical solutions. (30 marks)
 - 1.3 State types of colouring and flavouring agents of oral solution dosage forms. Explain their properties with suitable examples. (40 marks)
 - 1.4 Describe main problems associated with formulation of oral solutions. (20 marks)
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- 2.1 State the importance of **controlled flocculation** in formulation of suspensions? (10 marks)
 - 2.2 State the importance of wetting agents in controlling the flocculation of suspensions. (30 marks)
 - 2.3 Write a short note on anionic surfactants used as emulsifying agents. (20 marks)
 - 2.4 Explain the common stability problems associated with emulsions. (40 marks)

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- 3.
- 3.1 List **five** types of pharmaceutical powder preparations available in the market. (15 marks)
- 3.2 Briefly explain the disadvantages of pharmaceutical powders. (30 marks)
- 3.3 Explain the methods that can be used to reduce the particle size of powder formulations. (35 marks)
- 3.4 "In some medications, powder is more suitable as a dosage form." Explain the reasons. (20 marks)
- 4.
- 4.1 Define the word Transdermal Drug Delivery System (TDDS)? (15 marks)
- 4.2 "TDDS is established as an integral part of the novel drug delivery system" Explain the statement with the advantages of TDDS. (20 marks)
- 4.3 Discuss the requirement/s of following components of transdermal patches for their desired effect?

5. Ophthalmic preparations are specially designed dosage forms to be instilled onto the external surface of the eye (topical), administered inside (intraocular) or adjacent (peri-ocular) to the eye or used in conjunction with an ophthalmic device.

5.1. Classify ophthalmic dosage forms with examples. (20 marks)

5.2 Explain the uses of different types of excipients. (25 marks)

5.3 Explain the important safety measures to be considered in the formulation of ophthalmic preparation. (25 marks)

5.4 Discuss how to maximize the systemic bioavailability of nasally administered drugs. (30 marks)

6. Suppositories are available in different shapes and sizes.

6.1 Complete the following table with details on different types of suppositories. (15 marks)

	Type of the suppository	Shapes	Weight
1.			
2.			
3.			

6.2 List **four** specific problems occur in formulation of suppositories. (10 marks)

6.3 Discuss the properties of an ideal suppository base. (15 marks)

6.4 Describe the advantages and disadvantages of cocoa butter as a suppository base. (30 marks)

6.5 Explain briefly the quality assurance parameters of a suppository. (30 marks)