



**UNIVERSITY OF RUHUNA – FACULTY OF MEDICINE**

**ALLIED HEALTH SCIENCES DEGREE PROGRAMME**

**SECOND BPHARM PART II EXAMINATION – JUNE 2015**

**PH 2244: MEDICINAL CHEMISTRY & PHARMACOGNOSY IA (SEQ)**

**TIME: THREE HOURS**

**INSTRUCTIONS**

- Answer **all** questions.
- Do not use any correction fluid.
- Answer questions in the given answer book.
- Marks will be deducted for illegible hand writing.

1. Answer **all** parts.

1.1. Write **four** main objectives of the Department of Ayurveda in Sri Lanka.

*(03 marks)*

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1.2. State **three** main branches in Ayurveda Medicine and their relation to the science.

*(12 marks)*

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1.3. Write **three** elements in Ayurveda Medicine and **four** elements in Unani Medicine which regulate the body functions.

*(14 marks)*

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1.4. Name **five** types of problems that occur in the large scale manufacturing process of herbal medicines. **(10 marks)**

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1.5. Define the term "adulteration." **(06 marks)**

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1.6. Describe briefly the **two** types of adulterations. **(10 marks)**

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1.7. Give **one** example for each of the following adulterations. **(15 marks)**

1.7.1. Substitution with substandard commercial varieties.

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1.7.2. Substitution with exhausted drugs.

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1.7.3. Substitution with artificially manufactured substances.

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1.7.4. Substitution with superficially similar but cheaper natural substances.

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1.7.5. Addition of synthetic principles.

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1.8. Gelatin is an animal originated product.

*(11 marks)*

1.8.1. Name **four** amino acids present in gelatin.

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1.8.2. Name **one** amino acid not present in gelatin.

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1.8.3. Write down **two** different pharmaceutical uses of gelatin.

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1.9. Sketch a diagram to show the classification of fibers used in surgical dressings.

*(14 marks)*

02. Answer **all** parts.

2.1. Define the term “Crude drug”.

**(06 marks)**

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2.2. Giving **one** example for each source, name **three** different sources of crude drugs.

**(09 marks)**

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2.3. Describe briefly the classification of crude drugs according to their various factors giving **one** example for each category.

**(25 marks)**

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2.5. State **one** advantage and **one** disadvantage of each classification of crude drugs mentioned in the question 1.7.

(15 marks)

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2.6 Describe briefly **three** factors and sub factors those can influence the production of crude drugs. (You should give **one** example for each factor).

(25 marks)

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2.7. Name any **five** standards applied for the preparation of crude drugs.

(10 marks)

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2.8. Name **two** different extraction methods (including the type of the solvent and the name of the apparatus where required) used in the laboratory to prepare crude drugs originated from fat rich fish skin.

(10 marks)

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3. Use the following floral formula to answer following question.



3.1 Name and describe each of the symbols in above floral formula. (35 marks)

- (i) .....
- (ii) .....
- (iii) .....
- (iv) .....
- (v) .....
- (vi) .....
- (vii) .....

3.2 Distinguish between

(i) **Dehiscent** and **indehiscent** fruits

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ii). **Sepals** and **petals**

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iii). **Raceme** inflorescence and **Corymb** inflorescence

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(30 marks)

3.3 Give **five** leaf shapes with example for each

Type of fruit	Example
(i) .....	.....
(ii) .....	.....
(iii) .....	.....
(iv) .....	.....
(v) .....	.....

(35 marks)

4.

4.1 List **five** medicinally important plants in family Acanthaceae. **(20 marks)**

- (i) .....
- (ii) .....
- (iii).....
- (iv).....
- (v) .....

4.2. Name **two** characteristics to identify following plant families **(30 marks)**

(i) Solanaceae

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(ii) Poaceae

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(iii) Araceae

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(iv) Euphorbiaceae

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(v) Malvaceae

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4.3. Illustrate major tissue types in a monocot stem. **(20 marks)**

4.4. List **four** most important facts to be included when labeling a herbarium specimen.

(i) .....

(ii) .....

(iii).....

(iv).....

**(20 marks)**

4.5. Give **two** reasons for preserving and maintaining herbarium.

(i) .....

(ii) .....

**(10 marks)**