



UNIVERSITY OF RUHUNA – FACULTY OF ALLIED HEALTH SCIENCES

DEPARTMENT OF PHARMACY

THIRD BPHARM PART I EXAMINATION - JANUARY 2026

PH 3125 PHARMACOGNOSY II – SEQ

TIME: THREE HOURS

INSTRUCTIONS

- There are 6 questions in the parts A, B, C, D, E, F and G of this 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

01.

1.1 Kaneru poisoning is a commonly encountered toxicological condition in Sri Lanka.

1.1.1 Name one toxic constituent present in Kaneru. (05 marks)

1.1.2 State the antidote used in the management of Kaneru poisoning. (05 marks)

1.1.3 List three other commonly encountered toxic plants found in Sri Lanka. (15 marks)

1.2 Natural compounds isolated from marine sources possess significant medicinal and pharmacological properties.

1.2.1 State three sources of marine-derived natural products. (15 marks)

1.2.2 Briefly explain the standard procedures and ethical considerations that should be followed during the collection of marine organisms. (20 marks)

1.2.3 Complete the following table related to marine drugs. (40 marks)

Marine drug	Natural source	Therapeutic application
Cytarabine	1.2.3.1	1.2.3.2
Vidarabine	1.2.3.3	1.2.3.4
Trabectedine	1.2.3.5	1.2.3.6
Eribulin	1.2.3.7	1.2.3.8

PART B

02.

2.1 Define the term ethnobotany. (10 marks)

2.2 Outline the key steps involved in evidence-based drug discovery from medicinal plants. (20 marks)

2.3 Mention two examples of drugs developed using ethnobotanical knowledge. (10 marks)

2.4 Briefly explain the phases of a clinical trial for a drug candidate intended for the treatment of type II diabetes mellitus. (30 marks)

2.5 Outline the major steps involved in the isolation of bioactive compounds from an endophytic fungal strain, starting from the isolation of the fungal strain. (30 marks)

03.

- 3.1 Briefly explain the applications of medicinal plant biotechnology in drug discovery. (30 marks)
- 3.2 Classify the types of elicitors used in callus and cell suspension cultures giving suitable examples for each type. (20 marks)

PART C

- 3.3 State the importance of conducting non-clinical studies prior to the clinical trials. (20 marks)
- 3.4 Briefly explain the challenges associated with conducting clinical trials on herbal medicines. (30 marks)

PART D

- 4.1 What do you mean by sustainable utilization of medicinal plants? (05 marks)
- 4.2 Explain how proper harvesting strategies contribute to the sustainable use of medicinal plants. (15 marks)
- 4.3 Briefly describe the key threats associated with Sri Lankan and global medicinal plant diversity. (15 marks)
- 4.4 Give your suggestions to improve Sri Lankan medicinal plant sector. (15 marks)

PART E

- 4.5 Plants can be classified using their biochemical (chemotaxonomic) constituents.
- 4.5.1 Explain the basis of biochemical classification of plants. (20 Marks)
- 4.5.2 Describe the major groups of plants classified on the basis of their biochemical composition with relevant examples. (30 Marks)

PART F

05.

- 5.1 Briefly explain the herbal drug preparations in Ayurveda medicine. (20 marks)
- 5.2 Write the different ways of "drug adulteration" and give three examples of common adulterants. (20 marks)
- 5.3 Explain the methods used for processes and techniques for value addition of medicinal plants. Give four examples of value added products. (30 marks)
- 5.4 Describe the need of quality control and standardization of Ayurveda/herbal products herbal/Ayurveda medicine in Sri Lanka. (20 marks)
- 5.5 Write the key aspects of herbal product standardization. (10 marks)

PART G

06.

- 6.1 Define the term "biological products". (10 marks)
- 6.2 List five key drawbacks associated with biological products. (20 marks)
- 6.3 Describe the meaning of xenotransplantation. (15 marks)
- 6.4 Briefly describe the production process of monoclonal antibodies. (30 marks)
- 6.5 Write a short overview of plant-derived immunomodulators used in traditional herbal remedies, with specific examples. (25 marks)

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