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UNIVERSITY OF RUHUNA – FACULTY OF MEDICINE

ALLIED HEALTH SCIENCES DEGREE PROGRAMME

THIRD B PHARM PART I EXAMINATION- DECEMBER 2013

PH 3125: PHARMACOGNOSY II (SEQ)

TIME: 9.00 a.m.- 12.00 noon

INSTRUCTIONS

- Answer all questions.
- No paper should be removed from the examination hall.
- Do not use any correction fluid.

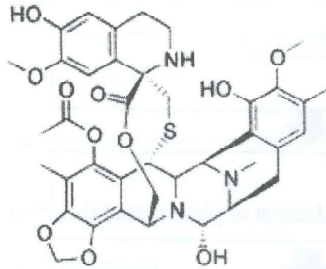
1. Comment on the following statements.

- 1.1 “Chemotaxonomic markers have ‘intermediate distribution’ in the plant kingdom.” (25 marks)
- 1.2 “The classification within the order Caryophyllales is strongly supported by the flavonoid chemistry.” (25 marks)
- 1.3 “Fumariaceae was formerly treated as a separate family, but now it is included in the family Papaveraceae.” (25 marks)
- 1.4 “The phylogenetic relationship between Cruciferae and Capparaceae was confirmed by chemical data.” (25 marks)

2.

- 2.1 What is immunity in Ayurvedic perspective? (10 marks)
- 2.2 Describe briefly the **three** main types of immunity specified in Ayurveda. (30 marks)
- 2.3 Explain the term ‘immuno-modulator’ indicating different types of immuno modulators. (20 marks)
- 2.4 Briefly explain the following;
 - 2.4.1 Structure of an antibody. (15 marks)
 - 2.4.2 Importance of Immunoassay method in determination of antigen/antibody in a biological system. (25 marks)

- 4.3 The marine drug ecteinascidin (Yondelis) used in the treatment of soft-tissue sarcoma is a natural product isolated from the tunicate *ecteinascidia turbinata*.



Ecteinascidin

State how a ready supply of this drug for commercial use was established.

(20 marks)

- 4.4 Recently a marine analgesic drug was approved for clinical use,

4.4.1 What is the name of this drug?

4.4.2 State the chemical nature of this compound.

4.4.3 What is the organism that produces it in the marine environment?

(20 marks)

5.

- 5.1 List **three** important reasons and **three** issues for using natural enzymes as drugs.

(20 marks)

- 5.2 Briefly explain the followings;

5.2.1 Live attenuated and inactivated vaccines

(20 marks)

5.2.2 Papain

(10 marks)

- 5.3 Describe the term 'toxins'.

(20 marks)

- 5.4 List out the main steps followed to prepare 'exotoxins' for commercial use.

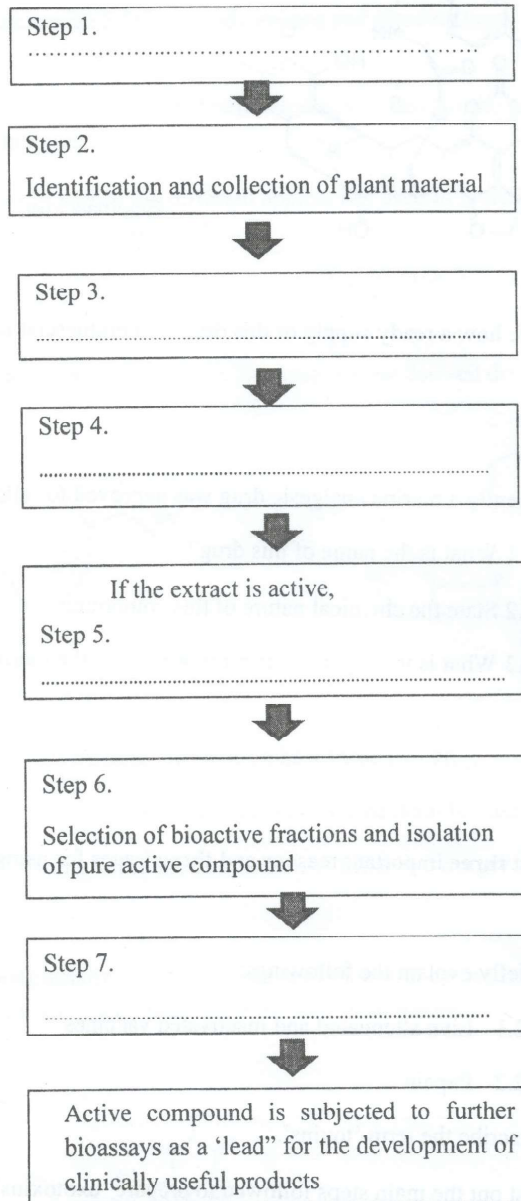
(10 marks)

- 5.5 Describe briefly anti rabies serum relevant to its main characteristics and uses.

(20 marks)

6.

6.1 Complete the following flowchart which summarizes the different stages in the process of modern drug discovery by ethnopharmacological approach.



(50 marks)

6.2 Briefly describe the significance of **step 1** for a successful ethnopharmacological research. (20 marks)

6.3 List **three** methods that are widely employed in **step 7**. (15 marks)

6.4 List **three** problems associated with the ethnopharmacological approach in drug discovery. (15 marks)