



Faculty of Health Sciences
Bachelor of Science Honors in Industrial Pharmaceutical Science
IPS 4143 – Pharmacognosy I
Batch 04
4th Year 1st Semester
End Semester Examination - SEQ

Date : 18th March 2024

Time : 9.00 a.m. - 12.00 p.m. (Three hours)

INSTRUCTIONS TO CANDIDATES

- This question paper consists of **SIX** questions.
- Answer **ALL** the questions.
- Final answers should be given in **lined sheets** legibly in black or blue ink.

Question 01 **(100 marks)**

- 1.1 List **two (02)** plant sources which contain tannins. (10 marks)
- 1.2 State the **two (02)** main types of high molecular weight carbohydrates found in plants, giving **one (01)** example for each type. (20 marks)
- 1.3 Describe the differences between fats and oils. (30 marks)
- 1.4 Discuss pharmaceutical uses of **four (04)** types of lipid derivatives. (40 marks)

Question 02 **(100 marks)**

- 2.1 State the main difference between organized and unorganized drugs. (10 marks)
- 2.2 List **four (04)** important alkaloids extracted from *Cinchona* spp. (20 marks)
- 2.3 Describe the methods used in isolation of resins. (30 marks)
- 2.4 You are provided with an unknown crude drug sample. Describe how you would identify whether the sample contains any resin, using the standard chemical tests. (40 marks)

Question 03 **(100 marks)**

- 3.1 List **two (02)** types of adulterants. (10 marks)
- 3.2 Briefly describe the indirect adulteration of herbal medicines. (20 marks)

- 3.3 Briefly describe following terms related to herbal drug market. Give **one (01)** example for each.
- 3.3.1 Inferiority of substances (15 marks)
- 3.3.2 Admixture (15 marks)
- 3.4 Describe the methods used in quantitative microscopy for crude drug evaluation. (40 marks)

Question 04 (100 marks)

- 4.1 State **three (03)** types of modified roots specialized for storage. (15 marks)
- 4.2 Briefly describe why the stomata absent in roots. (20 marks)
- 4.3 State **five (05)** key features of plant kingdom members. (25 marks)
- 4.4 "In some plants, the stem is modified to perform special functions." Discuss. (40 marks)

Question 05 (100 marks)

- 5.1 State the **four (04)** whorls of typical angiosperm flowers. (20 marks)
- 5.2 Briefly describe the different shapes of flowers belonging to following angiosperm families, giving **one (01)** example for each.
- 5.2.1 Family Apocynaceae (10 marks)
- 5.2.2 Family Rubiaceae (10 marks)
- 5.3 Briefly describe 'Pharmacopeia', 'Botanical floras' and 'Monographs'. (30 marks)
- 5.4 Describe the importance of better cultivation of medicinal plants. (30 marks)

Question 06 (100 marks)

- 6.1 Define the term 'crude drugs'. (10 marks)
- 6.2 List **four (04)** animal-based crude drugs. (20 marks)
- 6.3 Describe **three (03)** different ways used to classify crude drugs. (30 marks)
- 6.4 "There are both advantages and disadvantages in the use of crude drugs." Discuss. (40 marks)
