

B. Sc. DEGREE END SEMESTER EXAMINATION - MARCH 2026**SEMESTER 6 : BOTANY****COURSE : 19U6CRBOT13 : PHYTOCHEMISTRY AND PHARMACOGNOSY (EL)***(For Regular 2023 Admission and Supplementary 2022/2021/2020/2019 Admissions)*

Time : Three Hours

Max. Marks: 75

PART A**Answer All (1 mark each)**

1. Name an example for terpenoid group of alkaloids.
2. What are the parameters affecting the quality of an extract?
3. Define phytochemistry.
4. Write the scientific name and family of pepper mint.
5. What is the common origin of phenolic compounds in plants.
6. Name the source plant of Flavopyridole.
7. Write down any one important pharmacological action of *Adhatoda vasica*.

(1 x 7 = 7)**PART B****Answer any 10 (2 marks each)**

8. Write the chemical compounds present in mint oil.
9. Provide the chemical structure of the alkaloid morphine.
10. Write a short note on *Acorus calamus*.
11. Write down the chief pharmacological action of taxol.
12. Give the source and chemical constituents of lemongrass oil.
13. Explain how to use organoleptic characters in the study of phytochemicals.
14. Compare the starch grains of Maize and Wheat.
15. Briefly explain the properties of triterpinoids.
16. Name the following medicinal plants : a) A plant used in whooping cough b. A plant used in cancer treatment c. A plant used in leprosy d. A plant used for arthritis.
17. Provide the chemical structure of the alkaloid quinine.
18. Differentiate between analytical and chemical methods of adulteration.
19. Mention any two diagnostic features of the starch grains of potato.

(2 x 10 = 20)**PART C****Answer any 4 (6 marks each)**

20. Write briefly about the pharmacological uses of alkaloids.
21. Write a brief account on phenolics.
22. Explain the two approaches of screening of the plants selected for new drug discovery.
23. Write the ayurvedic formulations and pharmacological uses of *Aegle marmelos* and *Punica granatum*.
24. Explain the pharmacological action of *Aswagandha* and mention any one ayurvedic formulation from this plant
25. Write an account on the uses of a) *Rosa* b) *Cympopogon*.

(6 x 4 = 24)

PART D

Answer any 2 (12 marks each)

26. Describe the anatomical, chemical evaluation and pharmacological action of *Azadirachta indica* and *Withania somnifera*.
27. Describe the part used, uses and method of extraction of the following plants:
 - a) *Cinnamomum zeylanica*
 - b) *Syzygium aromaticum*
 - c) *Santalum album*
 - d) *Eucalyptus*
 - e) *Ocimum basilicum*.
28. Explain the structure, principle and method of extraction using soxhlet extractor.

(12 x 2 = 24)