

Reg. No .....

Name .....

23U675

**B. Sc. DEGREE END SEMESTER EXAMINATION : MARCH 2023**

**SEMESTER 6 : BOTANY**

**COURSE : 19U6CRBOT13 : PHYTOCHEMISTRY AND PHARMACOGNOSY (EL)**

*(For Regular - 2020 Admission and Supplementary - 2019 Admission)*

Time : Three Hours

Max. Marks: 75

**PART A**

**Answer All (1 mark each)**

1. What are the various types of microscopic approaches involved in the study of phytochemicals.
2. What type of chemicals can be extracted using soxhlet apparatus?
3. Name any two plant families that possess pentacyclic triterpenoids.
4. Name the pharmacological use of quinine.
5. Name two ayurvedic formulations with *Withania somnifera* and its uses.
6. Why volatile oils are called essential oils.
7. Define Pharmacognosy.

**(1 x 7 = 7)**

**PART B**

**Answer any 10 (2 marks each)**

8. List out the uses of phytochemicals.
9. Name any two isoquinoline group of alkaloids.
10. What are the major functions of phenolics in plants.
11. What are phenolics?
12. Give the morphology of useful parts a) *Asparagus* b) *Aegle marmelos*
13. Name a plant used in rheumatism. Write its scientific name, family and part used.
14. Write the part used of a) *Cananga* b) *Syzygium aromaticum*.
15. Explain the uses of vetiver oil.
16. Mention any two diagnostic features of the starch grains of potato.
17. Write a note on starch grains.
18. What is meant by drug adulteration?
19. Compare the starch grains of Maize and Wheat.

**(2 x 10 = 20)**

**PART C**

**Answer any 4 (6 marks each)**

20. Write a short account on the structure of alkaloids.
21. Write briefly about the pharmacological uses of alkaloids.
22. Comment on the anatomical features of *Adhatoda vasica*.
23. Give pharmacological uses of *Acorus calamus* with a note on its systematic position.
24. Explain the method of extraction of volatile oils of the following a) *Mentha piperita* b) *Ocimum basilicum*.
25. Explain the two approaches of screening of the plants selected for new drug discovery.

**(6 x 4 = 24)**

**PART D**

**Answer any 2 (12 marks each)**

26. Explain the structure, principle and method of extraction using soxhlet extractor.
27. Describe the phytochemistry and pharmacological uses of Adhatoda and Azadirachta.
28. Describe the part used, uses and method of extraction of the following plants: a) Rosa b) Vetiveria c) Pelargonium

**(12 x 2 = 24)**