

M.Sc. 4th Semester Examination, 2024

BOTANY

PAPER — BOT-401.1 & 401.2

Full Marks : 50

Time : 2 hours

Answer **all** questions

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

PAPER — BOT-401.1

[Marks : 20]

A . Answer any *two* questions : 2 × 2

1. Distinguish between latitude and longitude.

2. What is montane temperate ?
3. Mention two advantage of shelter wood system.
4. What is pool frost ?

B. Answer any *two* questions :

2 × 4

5. Write a note on Indian Irregular Shelter wood system.
6. Mention different formulae used for determination of volume of a wooden log.
7. Write down the role of temperature and precipitation on forest formation.
8. What is Pan formation ? Write down the different process for Pan formation.

C. Answer any *one* question : 8 × 1

9. Discuss role of

(a) edaphic factors and

(b) biotic factors in forest formation.

10. Write notes on : 4 × 2

(i) Farm Forestry ;

(ii) Exposure ;

(iii) Volume table ; and

(iv) Clear strip system.

PAPER – BOT-401.2

(Plant Anatomy and Pharmacognosy)

[Marks : 20]

A . Answer any *two* of the following questions : 2 × 2

11. What are salt glands ? Where does it occur.

12. Define schizogenous cavity. How does it differ from lysigenous cavity ?

13. Name the two distinct classes of cardiac glycosides.

14. Describe the organoleptic characteristics of *Adhatoda*.

B. Answer any *two* of the following questions :

2 × 4

15. Write a brief note on laticifers. 4

16. Write a note on micromorphological characteristics of crude plant drug *Holarrhena*. 4

17. Write down the health benefits of tea. 4

18. What is cambium? Write down the factors which influence the cambial activities in angiosperm stem. 1 + 3

C. Answer any *one* of the following question : 8×1

19. Diagrammatically describe the ultra-structure of a plant cell wall. Write down the chemical constituents of cell wall.

6 + 2

20. Describe the micromorphological and chemical characteristics of crude drug of *Rauvolfia*.

5 + 3

[Internal Assessment – 10 Marks]
