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PG/IVS/BOT/401.1&401.2

/25

M. Sc. 4th Semester Examination, 2025

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

Use separate scripts for separate units (i.e. BOT 401.1 and 401.2)

PAPER – BOT-401.1

(Silviculture, Silviculture system and Forest Mensuration)

[Marks : 20]

A . Answer any two questions :

2 × 2

1. Differentiate latitude and altitude.

(Turn Over)

(2)

2. What is stump height ?
3. What is Taungya ?
4. What is Shelterwood system ?

B. Answer any *two* questions : 4 × 2

5. Explain quarter girth formula. Mention its merits.
6. Mention the methods of removal of mature crops in clear felling system. Give its two advantages.
7. Write notes on : (a) volume table; (b) girth class.
8. Write down different forest types of India. Give examples of each type.

C. Answer any *one* question : 8 × 1

9. Mention role of (a) precipitation and (b) wild animal in forest formation.
10. Write non-instrumental methods for determination of height of a standing tree. What is farm forestry? Mention two objectives of silviculture. 4 + 2 + 2

PAPER – BOT-401.2

(Anatomy & Pharmacognosy)

[Marks : 20]

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

11. What is procambium? From where is it developed?
12. What are nectaries? Distinguish between floral and extrafloral nectary.
13. What is meant by organoleptic study? Mention its major disadvantage.

(4)

14. Name the alkaloid obtained from *Strychnos*. Mention its uses.

B. Answer any *two* questions : 4 × 2

15. Write a brief note on glandular trichomes.

16. Write a short note on P-proteins.

17. Write down the micro-morphological characteristics of crude drug of *Adhatoda*.

18. Discuss on the alkaloid obtained from Ergot and its health benefits.

C. Answer any *one* question : 8 × 1

19. What is periderm ? Mention its different components. Discuss the structure of periderm. 1 + 2 + 5

20. Discuss the micro-morphological and chemical characteristics of crude drug of *Catharanthus*.

[Internal Assessment — 10 Marks]