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Reg. No.....

Name.....

B.Sc. DEGREE (C.B.C.S.S.) EXAMINATION, NOVEMBER 2022

Fourth Semester

Complementary Course—Botany

ANATOMY AND APPLIED BOTANY

[For B.Sc. Zoology Model I]

(2013—2016 Admissions)

Time : Three Hours Maximum Marks : 60

Part A

Answer **all** *questions.*
Each question carries 1 *mark.*

1. What is a ring porous wood ?
2. What is a tonoplast ?
3. What is collenchyma ? Mention its function.
4. What are closed vascular bundles ?
5. What are sclerids ?
6. What is acclimatization ?
7. Define clonal selection.
8. What is asepsis ?

(8 × 1 = 8)

Part B

Answer any **six** *questions.*
Each question carries 2 *marks.*

9. What are growth rings ?
10. Differentiate between primary and secondary meristems.
11. Write down functions of mitochondria.
12. List the xerophytic adaptation of *Nerium.*

Turn over

13. What are fusiform initials ?

14. Differentiate between apomixis and amphimixis.

15. What do you mean by plant quarantine ?

16. What is cuttage ? List the different types of cutting.

(6 × 2 = 12)

Part C

Answer any **four** *questions.*
Each question carries 4 *marks.*

17. Explain the ultrastructure of cell wall.

18. Describe the role of cambium in budding and grafting.

19. Differentiate between hard wood and soft wood.

20. List the identifying features of dicot leaf.

21. Give a concise account of anatomical adaptations of hydrophytes.

22. Differentiate between interspecific and intergeneric hybridization.

23. What is air layering ? List the applications.

24. What are artificial seeds ? Mention its advantages and disadvantages.

(4 × 4 = 16)

Part D

Answer any **two** *questions.*
Each question carries 12 *marks.*

25. With a labelled diagram explain anomalous secondary thickening in Bignonia.

26. Briefly explain structure and functions of phloem.

27. Explain the procedure for polyplody breeding.

28. Give a brief account of morphological and anatomical adaptations of halophytes.

(2 × 12 = 24)