TDC (CBCS) Odd Semester Exam., 2020
held in March, 2021

BOTANY

(3rd Semester)

Course No. : BOTDSC/BOTGE–301T

(Plant Anatomy and Embryology)

Full Marks : 50
Pass Marks : 20

Time : 3 hours

The figures in the margin indicate full marks for the questions

SECTION—A

Answer any *fifteen* of the following questions : 1×15=15

1. Who proposed histogen theory?

2. What type of venation is found in dicot leaf?

3. Define chlorenchyma.

4. What is quiescent centre?

5. Who proposed tunica corpus theory?

6. Define phloem.

7. What is phellogen?

8. Define closed vascular bundle.

9. What is cambium?

10. Define cork.

11. What is wood?

12. Define vascular cambium.

13. Name a hydrophyte.

14. Name a xerophyte.

15. Define epidermis.

16. Define sunken stomata.

17. Name the genus of water hyacinth.

18. Define xerophytes.

19. What is ornithophily?

20. What is anemophily?

21. Define pappus.

22. What is orthotropous ovule?

23. Define pollination.

24. What is microspore?

25. What is aleurone layer?

26. Define albuminous seed.

27. What is endosperm?

28. What is the ploidy in the endosperm of gymnosperms?

29. What is suspensor?

30. Define apogamy.

SECTION—B

Answer any *five* of the following questions : 2×5=10

31. Write the features of meristematic tissue.

32. Differentiate between dicot and monocot leaves.

33. Differentiate between primary phloem and secondary phloem.

34. Write the features of heartwood.

35. Write about guard cells.

36. What do you mean by subsidiary cells?

37. Draw and label pollen grain.

38. What is triple fusion?

39. Point out the functions of endosperm.

40. What is the significance of embryo?

SECTION—C

Answer *any* **five** questions

41. Describe different theories regarding root apical meristem. 5

42. Give an account of anatomical features of dicot leaf with necessary diagram. 5

43. Describe structure and functions of vascular cambium. 3+2=5

44. Give a detailed account of secondary growth in stem. 5

45. Describe various types of stomata with necessary diagrams. 5

46. Write about general account of xerophytic adaptations. 5

47. Describe various contrivances (mechanisms) of cross-pollination. 5

48. Give an account of double fertilization. Draw various types of ovules. 2+3=5

49. Describe various types of endosperms with examples. 5

50. Define polyembryony. Describe various types of polyembryony. Point out its significance. 1+2+2=5

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