

**III Semester B.Sc. (NEP) Degree Examination, March/April - 2023**  
**BOTANY (DSC)**  
**Plant Anatomy and Developmental Biology**  
**(Regular)**

**Time : 2 Hours**

**Maximum Marks : 60**

**Instructions to Candidates :**

*Draw neat labelled diagrams wherever necessary.*

**I. Answer any Six of the following.**

**(6×2=12)**

1. Tetrad.
2. Scalariform.
3. Quiescent centre
4. Generative cell.
5. Fertilization.
6. Embryo - sac.
7. Gametophyte.
8. Microspore.

**II. Answer any Three of the following.**

**(3×4=12)**

9. Describe the characteristics of Meristem.
10. Describe the structure of Parenchyma.
11. Explain the Tunica - corpus theory.
12. Write a note on any two types of secretory tissues.

**III. Answer any Three of the following.**

**(3×4=12)**

13. Explain the differentiation in Roots.
14. Describe the different types of Vascular bundles.
15. Explain the T.S. of Dicot stem.
16. Explain the Anomalous growth in Bignonia stem.

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(3×4=12)

IV. Answer any **Three** of the following.

17. Explain the cell polarity in multicellular system.
18. Explain the ABC model specification of floral organs.
19. Explain the transition of vegetative apex to reproductive apex.
20. Give a general account of senescence.

(3×4=12)

V. Answer any **Three** of the following.

21. Explain the development of mature anther.
  22. Explain the monosporic embryo sac.
  23. Write the significance of the double fertilization.
  24. Explain the structure and composition of zygote.
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