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Set 2 – Anatomy of Flowering Plants

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1. The apical meristem of the root is present —
A) Behind the root cap
B) In the region of elongation
C) In the region of maturation
D) Above the root hair zone

2. Intercalary meristem helps in —
A) Regrowth after grazing
B) Secondary growth
C) Root elongation
D) Leaf abscission

3. Intercalary meristem is a derivative of —
A) Apical meristem
B) Lateral meristem
C) Secondary meristem
D) Cork cambium

4. Permanent tissues that lose the ability to divide are derived from —
A) Meristematic tissues
B) Protective tissues
C) Collenchyma
D) Xylem

5. Collenchyma differs from parenchyma in having —
A) Unevenly thickened walls
B) Lignified walls
C) Intercellular spaces
D) Large vacuoles

6. Sclerenchyma is different from collenchyma because it —
A) Consists of dead cells
B) Contains chloroplasts
C) Is capable of division
D) Has thin walls

7. In sclerenchyma, the chemical responsible for wall thickening is —
A) Lignin
B) Suberin
C) Cutin
D) Cellulose

8. The chief water-conducting element in gymnosperms is —
A) Tracheids

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B) Vessels
C) Xylem fibres
D) Xylem parenchyma

9. Vessels are found only in —
A) Angiosperms
B) Gymnosperms
C) Pteridophytes
D) Bryophytes

10. Sieve plates are found in —
A) Phloem
B) Xylem
C) Cortex
D) Pith

11. Companion cells are absent in —
A) Gymnosperms
B) Angiosperms
C) Monocots
D) Dicots

12. Albuminous cells in gymnosperms are analogous to —
A) Companion cells of angiosperms
B) Phloem fibres
C) Xylem vessels
D) Sclereids

13. The protoxylem and metaxylem are parts of —
A) Primary xylem
B) Secondary xylem
C) Primary phloem
D) Secondary phloem

14. The endarch condition of xylem is found in —
A) Stem
B) Root
C) Leaf
D) Flower

15. The exarch condition of xylem is found in —
A) Root
B) Stem
C) Leaf
D) Petiole

16. The stele includes —
A) All tissues inside the endodermis
B) Only vascular tissues

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C) Epidermis and cortex
D) Pith only

17. The function of Casparian strips in endodermis is —
A) To regulate water movement
B) To store starch
C) To transport minerals
D) To prevent gas exchange

18. In monocot root, the vascular bundles are —
A) Polyarch
B) Diarch
C) Triarch
D) Tetrarch

19. In dicot root, the vascular bundles are —
A) Tetrarch or pentarch
B) Polyarch
C) Closed
D) Scattered

20. Passage cells are present in —
A) Endodermis
B) Cortex
C) Pericycle
D) Pith

21. Passage cells are —
A) Thin-walled endodermal cells without Casparian strips
B) Xylem elements
C) Phloem fibres
D) Parenchyma cells in cortex

22. Secondary growth is absent in —
A) Monocot stem
B) Dicot stem
C) Dicot root
D) Gymnosperms

23. Vascular cambium originates from —
A) Intra-fascicular and inter-fascicular cambium
B) Endodermis
C) Pericycle
D) Xylem parenchyma

24. Secondary xylem and phloem are produced by —
A) Vascular cambium
B) Cork cambium
C) Apical meristem
D) Intercalary meristem

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25. The secondary growth increases —
A) Girth of stem
B) Length of stem
C) Size of leaves
D) Root hairs

26. The cork cambium produces —
A) Cork and secondary cortex
B) Secondary xylem
C) Secondary phloem
D) Vascular cambium

27. Cork cambium is also known as —
A) Phellogen
B) Phellem
C) Phelloderm
D) Periderm

28. Cork cells are rich in —
A) Suberin
B) Lignin
C) Cellulose
D) Cutin

29. Lenticels are found in —
A) Cork
B) Xylem
C) Phloem
D) Pericycle

30. Lenticels function in —
A) Gaseous exchange
B) Transpiration
C) Water absorption
D) Photosynthesis

31. Bark refers to —
A) All tissues outside vascular cambium
B) Only cork layer
C) Secondary xylem
D) Primary phloem

32. Early wood and late wood are formed due to —
A) Cambium activity variation in seasons
B) Cork cambium
C) Apical meristem
D) Pericycle

33. In annual plants, secondary growth is —
A) Absent

B) Highly active
C) Continuous
D) Intermittent

34. Heartwood is also known as —
A) Duramen
B) Alburnum
C) Sapwood
D) Cambium

35. Sapwood is also known as —
A) Alburnum
B) Duramen
C) Heartwood
D) Cork

36. Heartwood differs from sapwood in being —
A) Dark coloured and non-functional
B) Light coloured and functional
C) Outer and soft
D) Conducting part

37. Tyloses are —
A) Outgrowths from xylem parenchyma into vessels
B) Outgrowths from phloem
C) Phloem fibres
D) Companion cells

38. The function of tyloses is —
A) Blocking old xylem vessels
B) Food storage
C) Water transport
D) Strengthening phloem

39. Growth rings in trees help to determine —
A) Age of tree
B) Height of tree
C) Diameter of leaves
D) Type of root

40. The tissue responsible for formation of lateral roots is —
A) Pericycle
B) Endodermis
C) Cortex
D) Phloem

41. The endodermis controls —
A) Movement of water from cortex to xylem
B) Transport of food

C) Secretion of hormones
D) Photosynthesis

42. The pericycle lies between —
A) Endodermis and vascular tissue
B) Cortex and endodermis
C) Phloem and xylem
D) Pith and cortex

43. Monocot stem shows —
A) Closed vascular bundles
B) Open vascular bundles
C) Cambium between xylem and phloem
D) Secondary growth

44. Dicot stem shows —
A) Open vascular bundles
B) Closed vascular bundles
C) Scattered bundles
D) No cambium

45. The bundle sheath is present in —
A) Monocot leaves
B) Dicot roots
C) Dicot stems
D) Gymnosperm leaves

46. The bundle sheath in monocot leaf is made up of —
A) Sclerenchyma
B) Collenchyma
C) Parenchyma
D) Xylem

47. Bulliform cells occur in —
A) Monocot leaves
B) Dicot stems
C) Dicot roots
D) Gymnosperms

48. Bulliform cells help in —
A) Rolling and unrolling of leaves
B) Water conduction
C) Food transport
D) Photosynthesis

49. Mesophyll in dicot leaf is —
A) Differentiated into palisade and spongy parenchyma
B) Undifferentiated
C) Made of sclerenchyma
D) Made of collenchyma

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50. In monocot leaf, mesophyll is —
A) Undifferentiated
B) Differentiated
C) Absent
D) Only collenchymatous

✅ Answer Key – Set 2

1-A, 2-A, 3-A, 4-A, 5-A, 6-A, 7-A, 8-A, 9-A, 10-A,
11-A, 12-A, 13-A, 14-A, 15-A, 16-A, 17-A, 18-A, 19-A, 20-A,
21-A, 22-A, 23-A, 24-A, 25-A, 26-A, 27-A, 28-A, 29-A, 30-A,
31-A, 32-A, 33-A, 34-A, 35-A, 36-A, 37-A, 38-A, 39-A, 40-A,
41-A, 42-A, 43-A, 44-A, 45-A, 46-A, 47-A, 48-A, 49-A, 50-A.