ANATOMY OF FLOWERING PLANTS

1. Growth in plants is largely restricted to specialised regions of active cell division, which are called
(1) Permanent (2) Meristems
(3) Both (1) & (2) (4) Xylem

2. Tissue that produce woody axis and appear later than primary meristem is called
(1) Apical meristem
(2) Intercalary meristem
(3) Secondary meristem
(4) Both 1 and 2

3. Example of lateral meristem/s is/are :-
(A) Intrafascicular cambium (Fascicular vascular cambium)
(B) Interfascicular cambium
(C) Cork cambium
(1) Only A (2) Only B
(3) Only C (4) All A, B and C

4. Permanent tissue, having all cells similar in structure and function is called
(1) Simple tissue
(2) Complex tissue
(3) Cambium
(4) Apical meristem

5. Which of the following statement is incorrect for parenchyma?
(1) Cells are generally isodiametric
(2) Their cell walls are thin and made up of cellulose
(3) They perform various functions like photosynthesis, storage etc.
(4) Their cell walls are thick and lignified

6. Collenchyma cells are much thickened at the corners due to deposition of :-
(1) Cellulose, hemicellulose, lignin
(2) Cellulose, hemicellulose, pectin
(3) Cellulose, suberin
(4) Suberin, ligin

7. Sclereids are present in
(A) Fruit wall of nuts
(B) Pulp of guava, pear and sapota
(C) Seed coat of legume
(1) Only A (2) Only B
(3) Only C (4) All A, B and C

8. Consider the following statements.
(a) Phloem fibres are made up of sclerenchy-matous cells
(b) Phloem parenchyma are generally present in monocots
(c) The first formed primary phloem consists of narrow sieve tube and is referred to as protophloem and the later formed phloem has bigger sieve tubes and is referred to as metaphloem
Which statement(s) is/are false ?
(1) Only a (2) Only b
(3) Only c (4) a, b, and c

9. The outside of the epidermis is often covered with a waxy thick layer, called
(1) Hypodermis (2) Cuticle
(3) Root hair (4) Stem hair

10. Cuticle is absent in
(1) Roots (2) Dicot Stem
(3) Leaves (4) Monocot stem

11. Parenchymatous cells with large intercellular spaces which occupy the central portion of the stem constitute
(1) Cortex (2) Pith
(3) Hypodermis (4) Epidermis

12. In grasses, certain adaxial epidermal cells along the veins modify themselves into large, empty, colourless cells. These cells are called :-
(1) Bulliform cells (2) Starch sheath cells
(3) Companion cells (4) Complimentary cells

13. In dicot stem, the cells of cambium present between primary xylem and primary phloem is the
(1) Interfascicular cambium
(2) Vascular cambium
(3) Intra fascicular cambium
(4) Cork cambium

14. By the activity of cambium ring, the cells cut off toward pith, mature into
(1) Secondary phloem
(2) Primary xylem
(3) Secondary xylem
(4) Primary phloem

15. During secondary growth in dicot stem, At some places, the cambium forms a narrow band of parenchyma, which passes through the secondary xylem and secondary phloem in radial directions. These are called :-

(1) Sap wood

(2) Heart wood

(3) Secondary medullary rays

(4) Primary medullary rays

16. Bark that is formed early in the season is called

(1) Late bark (2) Soft bark

(3) Hard bark (4) Ring bark

17. At certain regions, the phellogen cuts off closely arranged parenchymatous cells on the outer side instead of cork cells. These are called :-

(1) Phellem (2) Periderm

(3) Bark (4) Complimentary cells

18. The cells of secondary cortex are :-

(1) Sclerenchymatous (2) Parenchymatous

(3) Collenchymatous (4) Meristematic

19. In dicot root, the vascular cambium is.

(1) Primary in origin

(2) Completely secondary in origin

(3) Both primary and secondary in origin

(4) Neither primary nor secondary in origin

20. Which of the following is primary meristem ?

(1) Apical meristem (2) Intercalary meristem

(3) Lateral meristem (4) both 1 and 2

21. Select odd one with respect to origin :-

(1) Interfascicular cambium

(2) Cork cambium

(3) Vascular cambium in dicot roots

(4) Intrafascicular cambium

22. During the formation of primary plant body, specific regions of the apical meristem donot produce :-

(1) Dermal tissues (2) Ground tissue

(3) Bark (4) Vascular tissue

23. Cells of parenchyma are generally isodiametric but different in shape. Which of the following is not a shape of parenchyma :-

(1) Spherical (2) Fibrous

(3) Oval (4) Elongated

24. Collenchyma is consist of cells which are much thickened at the corners due to deposition of

(1) Cellulose only

(2) Hemicellulose only

(3) Pectin only

(4) Pectin, cellulose and hemicellulose

25. Regarding to collenchyma find out the incorrect statement

(1) It's cell walls show pecto-cellulosic unlignified thickenings

(2) Intercellular spaces are generally absent

(3) Provide mechanical support to petiole of a leaf

(4) Found in the form of a layer below epidermis in monocots

26. Match the following :-

(a) Parenchyma	(i) Pericycle of root
(b) Collenchyma	(ii) Hypodermis of dicot stem
(c) Sclerenchymatous fibres	(iii) Pericycle of stem of *Linum*
(d) Sclerenchymatous sclereids	(iv) Pulp of pear

	a	b	c	d
(1)	i	ii	iii	iv
(2)	iv	iii	ii	i
(3)	i	ii	iv	iii
(4)	i	iii	ii	iv

27. Obliterated central lumen (cavity) is the characteristic feature of

(1) Tracheids (2) Vessels

(3) Xylem fibres (4) Xylem parenchyma

28. Select out the incorrect statement regarding to xylem

(1) On the basis of origin xylem is differentiated into primary xylem and secondary xylem.

(2) On the basis of development, secondary xylem is differentiated into protoxylem & metaxylem

(3) In stems, protoxylem lies towards centre and metaxylem towards periphery

(4) In roots, metaxylem lies towards centre & protoxylem towards periphery

29. Phloem fibres are generally present in :-

(1) Primary phloem (2) Secondary phloem

(3) Protophloem (4) Metaphloem

30. Classification of various tissue system is based on

(1) Structure (2) Location

(3) Type of cells (4) Both 1 & 2

31. The innermost layer of cortex of dicot root is characterised by presence of suberin thickening. This suberin thickening occurs on

(1) Radial walls (2) Transverse wall

(3) Tangential wall (4) Both 1 & 3

32. The parenchymatous cells lies between xylem & phloem of root is known as

(1) Cambium (2) Conjunctive tissue

(3) Pith (4) Pericycle

33. Regarding to stele which of the following statement is correct ?

(1) All the tissues lies inner to pericycle

(2) All the tissues lies inner to endodermis

(3) All the tissues lies inner to hypodermis

(4) All the tissues lies inner to epidermis

34. Due to continuous growth of secondary xylem which of the following get crushed gradually

(1) Primary phloem

(2) Earlier formed secondary phloem

(3) Either 1 or 2

(4) both 1 and 2

35. After secondary growth what is the actual future of primary xylem ?

(1) Converts into secondary xylem

(2) Remains more or less intact in or around the centre

(3) Converts into secondary phloem

(4) Gets crushed

36. The activity of cambium is under the control of :-

(1) Phloem activity (2) Physiological factors

(3) Environmental factors (4) Both 2 and 3

37. Regarding to wood find out the wrong statement :-

(1) Vessels of spring wood have wider cavities

(2) Vessels of autumn wood have wider cavities

(3) Spring wood is lighter in colour

(4) Autumn wood has a higher density

38. Match the following

(a) Early wood	(i) Innermost mass of wood
(b) Late wood	(ii) Wood just inner to vascular cambium
(c) Heart wood	(iii) Low density
(d) Sap wood	(iv) High density

	a	b	c	d
(1)	iii	iv	i	ii
(2)	iii	iv	ii	i
(3)	iv	iii	ii	i
(4)	iv	iii	i	ii

39. Impervious nature of cork for water is due to deposition of which chemical ?

(1) Lignin (2) Suberin

(3) Pectin (4) Hemicellulose

40. During secondary growth in root, cambium ring arises from

(1) Tissues located below phloem bundles

(2) Portion of pericycle tissue above protoxylem

(3) Endodermis

(4) Both 1 and 2

ANSWERS KEY

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ans.	2	3	4	1	4	2	4	2	2	1	2	1	3	3	3	2	4	2	2	4
Que.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Ans.	4	3	2	4	4	1	3	2	2	4	4	2	2	4	2	4	2	1	2	4