1.

Select incorrect statement w.r.t. anatomical features of monocot root.

1. Pericycle produces lateral roots and part of vascular cambium

2. Exodermis is present in older roots

3. Conjunctive parenchyma does not produce cambium

4. Well developed pith is present

2.

In the life cycle of a plant, the secondary tissues are made by

1. Intercalary meristem and vascular cambium

2. Apical meristem and cork cambium

3. Cork-cambium and vascular cambium

4. Primary meristems and interfascicular cambium

3.

Casparian strips are present in the endodermis of

1. Monocot stem

2. Dicot root

3. Dicot stem

4. More than one option is correct

4.

Mark the correct one w.r.t. bundle sheath in a dicot leaf

1. Sclerenchymatous

2. Collenchymatous

3. Parenchymatous

4. Lignified

5.

The springwood present in an annual ring

1. Is dark colored

2. Has high density than autumn wood

3. Has abundant fibers

4. Has low density than autumn wood

6.

Bulliform cells are associated with

1. The epidermis of dorsiventral leaves

2. The adaxial epidermis of isobilateral leaves

3. The abaxial epidermis of monocot leaves

4. Mesophylls of dicot leaves

7.

In monocotyledonous stem

1. Hypodermis is parenchymatous

2. Each vascular bundle is surrounded by collenchymatous bundle sheath

3. Peripheral vascular bundles are generally larger than centrally located ones

4. Water containing cavities are present within the vascular bundles

8.

A tree can be killed by removing its bark, as this also removes the _____.

1. Phelloderm only

2. Phellem only

3. Primary xylem

4. Secondary phloem

9.

Choose odd w.r.t. collenchyma

1. Living mechanical tissue

2. Intercellular space is absent in angular type

3. Thickening of the wall is due to deposition of lignin

4. Found in hypodermis of dicot stem

10.

Select incorrect statements from the given below

(i) Endodermis with Casparian strips are found in dicot stem

(ii) The endodermis is a part of the stele

(iii) Amphivasal vascular bundles are found in some monocots

(iv) Bulliform cells are found in the upper epidermis in isobilateral leaf

1 (i) and (ii)

2. (ii) and (iii)

3. (i), (ii) and (iii)

4. Only (iv)

11.

Dicot roots do not have cambium in vascular bundles, but secondary growth cambium is served from

1. Pericycle cells only

2. Pericycle and conjunctive tissue

3. Conjunctive tissue only

4. Pericycle and cortex

12.

Which of the following is secondary in origin?

1. Phellogen

2. Interfascicular cambium

3. Wound meristem

4. More than one option is correct

13.

Periderm includes

1. Only cork cambium

2. Cork cambium and cork only

3. Cork and secondary cortex

4. Cork, Cork cambium and secondary cortex

14.

Select incorrect statement w.r.t. the anatomy of monocot stem

1. Parenchymatous ground tissue is extended from hypodermis to center

2. Hypodermis is made of thick-walled living mechanical tissue

3. Vascular bundles are conjoint, collateral and closed with endarch xylem

4. Pith is absent

15.

In parenchyma, all cells are isodiametric and

1. Thin-walled

2. Thick-walled

3. Lignified-walled

4. Devoid of intercellular spaces

16.

In which character an isobilateral leaf differs from the dorsiventral leaf?

1. Scattered vascular bundles

2. Undifferentiated mesophylls

3. Absence of stomata with guard cells

4. Conjoint, collateral, and closed vascular bundle

17.

Tissue which provides mechanical strength and flexibility to young dicot stem is present in

1. Pith
2. Endodermis
3. Hypodermis
4. Cortex

18.

The ground tissue system is constituted by all off these, except

1. Medullary rays
2. Pericycle
3. Mesophyll
4. Xylem

19.

Conjoint, collateral, closed vascular bundles without phloem parenchyma are found in plants which have

1. Differentiated ground tissue in the stem
2. Dedifferentiated pericyclic structure in the mature root
3. Sclerenchymatous hypodermis in stem
4. Developed pith in stem

20.

The tissue belonging to bark but not to periderm is

1. Vascular cambium
2. Secondary phloem
3. Phellem
4. Secondary cortex

21.

Which of the following is correct w.r.t. lenticels?

a. Phellogen forms parenchymatous cells on the outer side

b. It is a lens-shaped opening

c. Helps in exchange of gases

d. Present mostly in woody trees

1. a & b correct
2. c & d correct
3. b, c, & d correct
4. All are correct

22.

Identify the incorrect match w.r.t. wood characters given in A, B, C column

	A	B	C
1.	Early Wood	Large no. of xylary elements	Springwood	wide cavities
2.	Latewood	Few xylary elements	Autumn wood	Narrow cavities
3.	Heartwood	Dark brown in Colour	Dead elements	Filled with resins and gums
4.	Sapwood	Light in color	Living elements	Conducts water and minerals

23.

In a leaf, oval cells with large intercellular spaces and radially arranged columnar cells without intercellular spaces are placed respectively towards

1. Adaxial and abaxial epidermis
2. Abaxial and adaxial epidermis
3. Abaxial and abaxial epidermis
4. Lower and abaxial epidermis

24.

Select the incorrect statement w.r.t. late wood

1. It forms a narrow strip in annual rings
2. Has smaller and narrower vessels
3. Darker in colour
4. Fibres are less

25.

Which of the following is not the component of secondary phloem?

1. Protophloem
2. Bast fibers
3. Companion cells
4. Phloem parenchyma

26.

Monocot root differs from dicot root in

1. Having differentiated ground tissue
2. Presence of centripetal xylem
3. Pericyclic origin of lateral roots
4. Presence of large and well-developed pith

27.

Protoxylem lies towards periphery and metaxylem lies towards the centre. Such arrangement of _____ xylem is present in _____.

1. Secondary, root
2. Primary, stem
3. Secondary, stem
4. Primary, root

28.

Which one of the following are elongated single-celled water-conducting dead structures with bordered pits?

1. Tracheids
2. Vessels
3. Sclerenchyma fibres
4. Sclereids

29.

Lenticels are present in

1. Outer primary protective tissue
2. The outer layer of secondary protective tissue
3. The middle layer of secondary protective tissue
4. Inner layer of secondary protective tissue

30.

Cells having cellulose, hemicellulose and pectin deposits on the wall and shows its presence commonly in the petiole of leaf and growing green stems belong to

1. Sclerenchyma
2. Collenchyma
3. Aerenchyma
4. Parencyma

31.

Elongated or tube-like cells with thick and lignified walls and tapering ends is

1. Tracheids
2. Vessel
3. Sieve tube
4. Collenchyma

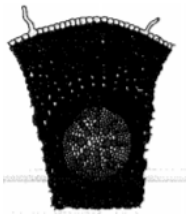
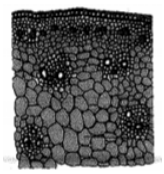
32.

As compared to the monocot root, the dicot root has/shows

1. Large and well-developed pith
2. Primary growth only
3. Sclerenchymatous pericycle
4. Fewer xylem bundles

33.

Which of the given figure represents the internal structural details of a monocot root?

1. 
2. 
3. 
4. 

34.

The most abundant and common tissue in plants

1. Has non-vacuolated cytoplasm
2. Is living and has cellulosic wall
3. Stores ergastic substances always
4. Cannot take part in photosynthesis

35.

Secondary meristems are found in

1. All angiosperms
2. Gymnosperms and all monocots
3. Dictos and gymnosperms
4. All spermatophytes

36.

Monocot stems do not have

1. Protophloem
2. Phloem parenchyma
3. Companion cell in phloem
4. Sieve tube and metaphloem

37.

Choose the correct option w.r.t. sclereids

1. Physiologically active
2. Pits are present
3. Derived from meristems directly
4. Little amount of protoplasm is present

38.

The isobilateral leaf is characterized by all the given characteristics, except

1. Vascular bundles are always closed
2. Xylem is towards the adaxial surface of leaf
3. Mesophyll cells are not differentiated
4. Parenchymatous extensions of the bundle sheath

39.

Collenchyma is characterised by

1. Absence of protoplast at maturity
2. Supporting young stem and leaf petiole
3. Lignocellulosic thickening on secondary walls
4. The common presence of intracellular spaces

40.

Epidermal hairs on stems known as trichomes

1. May sometimes be secretory in function

2. Have vascular supply

3. May be soft or stiff but unbranched always

4. Are endogenous in origin like lateral roots

41.

Select the incorrect statement w.r.t. bast fibres

a. Generally absent in primary phloem

b. Elongated, branched with blunt ends

c. Parenchymatous in nature

d. Becomes dead at maturity

1. a & d

2. b & d

3. b & c

4. a & b

42.

Sieve tube elements are long, tube-like structures, arranged longitudinally and associated with the companion cells. A mature sieve element

1. Has a small vacuole

2. Lacks nucleus and cytoplasm

3. Possesses a large vacuole and small nucleus

4. Possesses a peripheral cytoplasm

43.

During the secondary growth in the dicot stem, the cambial ring becomes active and begins to cut off new cells both towards the inner and the outer sides. The cells cut off

1. Towards pith, mature into secondary phloem

2. Towards the periphery, mature into secondary xylem

3. Towards pericycle, mature into secondary xylem as well as secondary phloem

4. Mature into secondary vascular tissues

44.

Match the column I with column II

Column I	**Column II**
a. Xylem parenchyma	(i) Absent in most of the monocots
b. Sclereids	(ii) Lond cylindrical tube-like structure
c. Phloem parenchyma	(ii) Food and tannins
d. Vessel	(iv) Fruit walls of nuts

1. a(i), b(ii), c(iii), d(iv)

2. a(ii), b(iv), c(iii), d(i)

3. a(iii), b(iv), c(i), d(ii)

4. a(iii), b(ii), c(i), d(iv)

45.

Mark the incorrect statement w.r.t. guard cells in stomata

1. In grasses these are dumb-bell shaped

2. They possess chloroplasts

3. Regulate opening and closing of stomata

4. Outer walls are thick and inner walls are thin in dicots

46.

Well developed pith is present in

1. Dicot stem, monocot root

2. Monocot stem, dicot root

3. Dicot root, dicot stem

4. Monocot root, monocot stem

47.

Which among the following cannot be a feature of given diagram?

1. It is a long cylindrical tube like structure
2. Having lignified walls
3. having large central cavity
4. Having protoplasm

48.

Mark the correct statements w.r.t. meristematic tissues

A. The meristem that occurs at the tip of roots and shoots contributes to the formation of the primary plant body.

B. The lateral meristems are responsible for producing the secondary tissues.

C. Some cells 'left behind' from the lateral meristem, constitute the axillary bud.

D. The cells which are structurally and functionally specialised and lose the ability to divide are called meristems.

1. A & C
2. A & B
3. B & C
4. C & D

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