



## BIOLOGY

### BOOKS - TRUEMAN BIOLOGY

### ANATOMY OF FLOWERING PLANTS

#### Multiple Choice Questions

1. The cells of meristems have

- A. thin cellulosic cell walls
- B. dense protoplasm
- C. prominent nuclei
- D. all of the above

**Answer: A**



Watch Video Solution

 [Watch Video Solution](#)

2. Leaves of Monocot or grass leaves and stem of bamboo, and mint grow in size to activity of

- A. apical meristem
- B. intercalary meristem
- C. lateral meristem
- D. dermatogen

**Answer: B**

 [Watch Video Solution](#)

3. what is cross pollination

 [Watch Video Solution](#)

4. Root apex is subterminal because

- A. is covered by tunica cells
- B. is covered by root hairs
- C. has many corpus cells
- D. is covered by root cap

**Answer: B**



[Watch Video Solution](#)

5. one function of parenchyma



[Watch Video Solution](#)

6. probability of normal male children born to a haemophilic mother  
,haemophilic father



[Watch Video Solution](#)

 Watch Video Solution

7. one function of sclerenchyma

 Watch Video Solution

8. deficiency of vitamin D causes what

 Watch Video Solution

9. The living mechanical tissue providing tensile strength is

A. sclerenchyma

B. parenchyma

C. collenchyma

D. sclereid

**Answer: C**



[Watch Video Solution](#)

10. write 3 difference between self pollination and cross pollination



[Watch Video Solution](#)

11. what is hypokalemia



[Watch Video Solution](#)

12. Eustele condition is found in the stem of

- A. dicots
- B. monocots
- C. ferns
- D. pteridophytes

**Answer: A**



**Watch Video Solution**

**13. where is sperm of cockroach stored**



**Watch Video Solution**

**14. Epidermal outgrowths are known as**

A. stem

B. stomata

C. buds

D. trichomes

**Answer: D**



**Watch Video Solution**

15. When we peel the skin of a potato tuber, we remove

A. periderm

B. cuticle

C. epidermis

D. sapwood

**Answer: C**



**Watch Video Solution**

16. Concentric vascular bundles are

A. open

B. closed

C. may be open or closed

D. endarch

**Answer: B**



**Watch Video Solution**

**17. Monocot leaves show**

- A. both spongy and palisade mesophyll
- B. only palisade mesophyll
- C. only spongy mesophyll
- D. none of the above.

**Answer: C**



**Watch Video Solution**

**18. The water cavity present in the xylem of maize stem vascular bundles is**



A. schizogenous

B. hydrolytic

C. lysigenous

D. shizo-lysigenous

**Answer: D**



**Watch Video Solution**

**19. Phloem of monocots generally lacks**

A. sieve tubes

B. phloem fibres

C. phloem parenchyma

D. companion cells

**Answer: C**



**Watch Video Solution**

20. Phloem in dorsiventral leaves is directed towards

- A. lower epidermis
- B. centre
- C. upper epidermis
- D. absence in leaves

**Answer: A**



[Watch Video Solution](#)

21. Vascular bundles are surrounded on all sides by a sclerenchymatous sheath in

- A. dicot stem
- B. dicot root
- C. monocot stem

D. monocot root

**Answer: C**



[Watch Video Solution](#)

**22.** Torus is concerned with

A. boarded pits

B. thalamus

C. both (1) and (2)

D. vessels

**Answer: C**



[Watch Video Solution](#)

**23.** radial vascular bundles are those in which

A. xylem and phloem lie on different radii

B. xylem surrounds phloem

C. phloem surrounds xylem

D. xylem and phloem lie on same radii

**Answer: A**



[Watch Video Solution](#)

**24.** casparian strip is formed by deposition of

A. mainly pectin

B. cellulose

C. suberin and lignin

D. lignin

**Answer: C**



[Watch Video Solution](#)

25. Pericycle of dicot root does not take part in the formation of

- A. cambium
- B. lateral roots
- C. root hairs
- D. cork cambium

**Answer: C**



[Watch Video Solution](#)

26. Mesophyll is differentiated into palisade and spongy parenchyma in adaptation to

- A. light intensity
- B. reduced transpiration
- C. low water availability

D. atmospheric humidity

**Answer: A**



**Watch Video Solution**

27. hypodermis in monocotyledonous stem is

A. parenchyma

B. chlorenchyma

C. sclerenchyma

D. collenchyma

**Answer: C**



**Watch Video Solution**

28. Bulliform cells that help in the rolling down of Lamina in drought, are present in epidermis of

- A. monocotyledonous/grass leaf
- B. dicotyledonous leaf
- C. both of these
- D. none of these

**Answer: A**



[Watch Video Solution](#)

29. In monocotyledonous leaf, the guard cells are

- A. kidney shaped
- B. dumbel shaped
- C. columnar
- D. rectangular

**Answer: B**



**Watch Video Solution**

**30.** write the fullform of ADH



**Watch Video Solution**

**31.** In dorsiventral leaf, xylem is on

- A. adaxial side
- B. abaxial side
- C. laterla side
- D. mesarch

**Answer: A**



**Watch Video Solution**



32. Vascular bundles in a dicot leaf are

- A. conjoint, collateral and open
- B. conjoint, collateral and closed
- C. collateral and open
- D. collateral and closed

**Answer: B**



[Watch Video Solution](#)

33. Collenchyma is mostly found in stem of

- A. exrophytes
- B. hydrophytes
- C. herbaceous climbers
- D. woody climbers

**Answer: C**



**Watch Video Solution**

**34.** Near the upper epidermis of leaf are found

- A. spongy parenchyma
- B. palisade parenchyma
- C. fibres
- D. sclereids

**Answer: B**



**Watch Video Solution**

**35.** In bicollateral vascular bundle

- A. xylem is sandwiched by phloem

- B. phloem is sandwiched by xylem
- C. splitting of one bundle into two equal bundles
- D. fusion of two lateral bundles

**Answer: A**



**Watch Video Solution**

**36.** Meaningful girdling experiments can not be performed with sugarcane plant because

- A. its stem is thin
- B. its vascular bundles are scattered and not arranged in a sequential order
- C. its stem surface is coated with wax
- D. phloem is interior to xylem

**Answer: B**

 [Watch Video Solution](#)

37. Sunn hemp fibre (*Crotalaria juncea*) is obtained from

- A. secondary xylem
- B. secondary phloem
- C. leaf
- D. testa of seed

**Answer: B**

 [Watch Video Solution](#)

38. Two to six exarch radial vascular bundles and little pith are found in

- A. dicot stem
- B. monocot root
- C. dicot root

D. dicot leaf

**Answer: C**



**Watch Video Solution**

**39.** Collenchyma is a simple tissue and differs from sclerenchyma in

- A. retaining protoplasm at maturity
- B. lacking thick cell wall
- C. having narrow lumen
- D. being meristematic

**Answer: A**



**Watch Video Solution**

**40.** Vascular tissue of monocot root is

A. collateral, open diarch and endarch

B. radial, open tetrach an exarch

C. radial, open and endarch

D. radial, closed and exacrch

**Answer: D**



[Watch Video Solution](#)

**41. Iso bilateral leaves have**

A. The stomata are present on both the surfaces

B. undifferentiated mesophyll

C. both (1) and (2)

D. palisade on both sides

**Answer: B**



[Watch Video Solution](#)

42. Vascular bundles are scattered and closed in

- A. monocot root
- B. dicot root
- C. dicot stem
- D. monocot stem

**Answer: D**



[Watch Video Solution](#)

43. vascular cambium of stem is

- A. partly primary and secondary meristem
- B. primary meristem
- C. secondary meristem

D. intercalary meristem

**Answer: A**



[Watch Video Solution](#)

**44.** Ringing/girdling experiment was first performed in

- A. shoot dies first
- B. root dies first
- C. leaves die first
- D. all of these

**Answer: B**



[Watch Video Solution](#)

**45.** cork/bottle cork is formed from



- A. plerome
- B. phellogen
- C. phelloderm
- D. periderm

**Answer: B**

 [Watch Video Solution](#)

**46.** Young region of secondary phloem is found

- A. just inside cambium
- B. just inside primary phloem
- C. just outside cambium
- D. just outside primary xylem

**Answer: C**

 [Watch Video Solution](#)

47. In dicot root, cambium develops from secondary meristem. First to happen during secondary growth is

1. cambium becomes active below phloem
2. conjunctive tissue inner to phloem gets active
3. cambium develops from pericycle opposite to protoxylem
4. a wavy ring of cambium develops.

A. cambium becomes active below phloem

B. conjunctive tissue inner to phloem gets active

C. cambium develops from pericycle opposite to protoxylem

D. a wavy ring of cambium develops.

**Answer: B**



**Watch Video Solution**

48. If today a signboard is nailed to the side of a tree 5 feet above the ground, how high would the sign be after 6 years if tree grows 4 inches taller per year ?

- A. Move up by 24 inches
- B. Move down by 24 inches
- C. Remain where it was
- D. Move up by 16 inches

**Answer: C**



[Watch Video Solution](#)

49. Non-porous and soft wood is found in

1. gymnosperms
2. dicots
3. monocots
4. ferns

A. gymnosperms

B. dicots

C. monocots

D. ferns

**Answer: A**



[Watch Video Solution](#)

**50.** Porous and hard wood plants belong to

A. gymnosperms

B. monocots

C. dicots

D. tracheophytes

**Answer: C**



[Watch Video Solution](#)

51. A complete ring a vascular combium in dicot stem is formed by the combination of

- A. interfascicula cambicum and cork camlum
- B. intefascicular and intrascicular cambium
- C. interfascicular cambium and procabium
- D. fascicular combium and cork cabium

**Answer: B**



[Watch Video Solution](#)

52. Gymnospermic wood is soft wood because

- A. it is very soft like a sponge
- B. it is without fibers and vessels
- C. it is nonporous and parenchymatous

D. all the above

**Answer: B**



**Watch Video Solution**

**53.** Grafting is not possible in monocots because they

- A. they lack cambium
- B. they are herbs
- C. they have few vascular bundles
- D. none of the above

**Answer: A**



**Watch Video Solution**

**54.** The annual rings are are distinct in plants growing in

- A. tropical region
- B. temperate region
- C. equatorial region
- D. arctic region

**Answer: B**



**Watch Video Solution**

55. In old trees, part of secondary xylem that conduct  $H_2O$  and minerals is called

- A. heart wood
- B. sap wood
- C. late wood
- D. autumn wood

**Answer: B**

 [Watch Video Solution](#)

56. Xylotomy is study of wood. Dendrochronology is the study of

- A. diameter of tree
- B. secondary growth of a tree
- C. age of tree by counting annual rings in main trunk
- D. counting of the number of branches

**Answer: C**

 [Watch Video Solution](#)

57. Periderm consist of three namely

- A. outer phellogen, middle phellen and inner phelloderm
- B. outer phelloderm, middle phellen and inner phelloderm
- C. outer secondary cortex, middle cork and inner cork cambium



D. outer phellogen, middle cork and inner phelloderm

**Answer: B**



[Watch Video Solution](#)

**58.** Termites usually does not attack/most durable part of woods is

A. alburnum

B. duramen

C. periderm

D. bark

**Answer: B**



[Watch Video Solution](#)

**59.** Vascular combium is lateral meristem and gives rise to

A. primary xylem and primary phloem

B. more of secondary xylem on inner side and less of secondary phloem on outer side

C. less of secondary phloem on inner side and more secondary xylem on outer side

D. secondary phloem only

**Answer: B**



[Watch Video Solution](#)

60. A narrow layer of thin-walled cells found between phloem/bark and wood of a dicot is

A. endodermis

B. vascular cambium

C. pericycle

D. cork cambium

**Answer: B**



[Watch Video Solution](#)

**61.** Which will decay faster if exposed freely

A. Heartwood

B. Sap wood

C. Wood rich in fibres

D. Soft wood

**Answer: B**



[Watch Video Solution](#)

**62.** Abnormal secondary growth is observed in

A. Dracaena

B. Cordyline

C. Aloe

D. All of these

**Answer: D**



**Watch Video Solution**

**63. Match the following :**

1. Soft wood (a) Vessels present
2. Hard wood (b) Non-functional
3. Sap wood (c) Vessels absent
4. Heart wood (d) Functional

A. A) 1(a), 2(c), 3(d), 4(b)

B. B) 1(c), 2(b), 3(a), 4(b)

C. C) 1(c), 2(a), 3(b), 4(d)

D. D) 1(c), 2(a), 3(d), 4(b)

**Answer: D**



[Watch Video Solution](#)

**64.** Cork cambium in dicot stem originates from

- A. epidermis
- B. endodermis
- C. outer layer of pericycle
- D. outer cortex cells

**Answer: D**



[Watch Video Solution](#)

**65.** periderm is produced by

- A. phellogen

B. vascular cambium

C. fascicular cambium

D. cork cells

**Answer: A**



**Watch Video Solution**

**66.** Quinine (antimalarial drug) is obtained from

A. Bark of Cinchona

B. Cork or Cinhona

C. Bark of Cinnamon

D. Cork of Cinnamon

**Answer: A**



**Watch Video Solution**

67. Heart wood helps in

- A. mechanical support
- B. circulation
- C. ascent of sap
- D. translocation of food

**Answer: A**



[Watch Video Solution](#)

68. Cells of vascular cambium divide

- A. transversely only
- B. periclinally both on outer and inner side
- C. periclinally on outer side only
- D. anticlinally only

**Answer: B**



[Watch Video Solution](#)

**69.** A 50 years old tree with distinct annual rings in its trunk will show:

1. 50 annual rings from base of trunk to apex
2. 50 rings at bae of trunk and about 20 rings at apex.
3. 50 rings at is base of trunk and uniformly decreasing towards apex
4. 50 rings at bae of trunk and more or irregular number of rings at apex.

A. 50 annual rings from base of trunk to apex

B. 50 rings at bae of trunk and about 20 rings at apex.

C. 50 rings at is base of trunk and uniformly decreasing towards apex

D. 50 rings at bae of trunk and more or irregula number of rings at apex.

**Answer: C**



[Watch Video Solution](#)



70. Secondary growth is absent in

- A. 1.roots
- B. 2.stem
- C. 3.leaves
- D. 4.gymnosperms

**Answer: C**



[Watch Video Solution](#)

71. where is sperm of cockroach produced



[Watch Video Solution](#)

72. Phelloderm consists of

A. living parenchymatous cells

B. dead sclerenchymatous cells

C. both (1) and (2)

D. collenchyma cells

**Answer: A**

 [Watch Video Solution](#)

**73.** name disease caused by vitamin B-12 deficiency

 [Watch Video Solution](#)

**74.** Hemp fibre is obtained from secondary phloem of stem of

A. 1.Linum

B. 2.Boehmeria

C. 3.Corchorus

D. 4.Cannabis

**Answer: D**



**Watch Video Solution**

**75.** name disease which occurs from vitamin C deficiency

A.

B.

C.

D.

**Answer: B**



**Watch Video Solution**

**76.** Cotton fibre is

A. sclenchyma cell

B. collenchyma cell

C. sclereid

D. epidermal outgrowth

**Answer: D**



[Watch Video Solution](#)

77. Cortex/ ground tissue of leaf is called

A. mesophyll

B. ground tissue

C. upper epidermis

D. lower epidermis

**Answer: A**



[Watch Video Solution](#)

78. In a dorsiventral leaf, location of palisade tissue and phloem is respectively on the \_\_\_\_ surfaces.

- A. 1.adaxial and abaxial
- B. 2.adaxial and adaxial
- C. 3.abaxial and adaxial
- D. 4.abaxial and abaxial

**Answer: A**



[Watch Video Solution](#)

79. Vascular cambium of stem is

- A. partly primary and secondary meristem
- B. primary meristem
- C. secondary meristem

D. intercalary meristem

**Answer: A**



**Watch Video Solution**

**80.** A secondary meristematic tissue can develop due to the resumption of power of division in

- A. parenchyma and sclerenchyma
- B. parenchyma and collenchyma
- C. Collenchyma and sclerenchyma
- D. Collenchyma and tracheids.

**Answer: B**



**Watch Video Solution**

81. A permanent secondary tissue is produced by the activity of

- A. marginal meristem
- B. intercalary meristem
- C. apical meristem
- D. lateral meristem

**Answer: D**



**Watch Video Solution**

82. The wall-thickening material in tracheids and vessels are

- A. cutin and suberin
- B. cellulose and cutin
- C. suberin and cellulose
- D. lignin and cellulose

**Answer: D**



[Watch Video Solution](#)

**83.** The ladder like thickenings in tracheids and vessels are called

- A. 1.annular
- B. 2.spiral
- C. 3.scalariform
- D. 4.reticulate

**Answer: C**



[Watch Video Solution](#)

**84.** A distinguishing feature of companion cells is that they arise from the same initial from which arises



A. phloem parenchyma

B. bast fibre

C. sieve tube

D. cambium

**Answer: C**



**Watch Video Solution**

**85. Statement :** While observing transvers sections of two steams, the anatomical characters were recorded as under :

A. Vascular bundles conjoint with fibrous bundle sheath.

B. Vascular bundles conjoint without fibrous bundle sheath.

C. Vascular bundles collateral and closed.

D. Vascular bundles collateral and open.

**Answer: C**

 [Watch Video Solution](#)

86. The distinguishing anatomical features of stem are that they have
- A. multicellular hairs, exarch xylem and exogenous lateral branched
  - B. multicellular hairs, endarch xylem and exogenous lateral branched
  - C. unicellular hairs, xylem and exogenous lateral branches
  - D. multicellular hairs, endarch xylem and endogenous lateral branches

**Answer: B**

 [Watch Video Solution](#)

87. In the endodermis of root the passage cells have
- A. thick walls with casparian strips
  - B. thick walls without casparian strips
  - C. thin walls with casparian strips

D. thin walls without casparian strips

**Answer: C**



[Watch Video Solution](#)

**88.** After the commencement of secondary growth in dicot stem, the primary xylem would be observed to occupy a position on the

- A. inner side of secondary xylem
- B. inner side of secondary phloem
- C. outer side of secondary xylem
- D. outer side of secondary phloem

**Answer: A**



[Watch Video Solution](#)

89. A characteristic feature of a transverse section of an old dicot root is that it show secondary xylem

- A. interrupted by primary rays and exarch primary xylem.
- B. interrupted by primary medullary rays exarch primary xylem.
- C. uninterrupted by primary medullary rays exarch primary xylem.
- D. uninterrupted by primary medullary rays endarch primary xylem.

**Answer: A**



[Watch Video Solution](#)

90. Healing of wound in plants takes place by the activity of

- A. intercalar meristem
- B. secondary meristem
- C. mass meristem
- D. apical meristem

**Answer: B**



**Watch Video Solution**

**91.** Conjunctive tissue found in stelar region of roots is

A. parenchyma

B. collenchyma

C. sclerenchyma

D. aerenchyma

**Answer: A**



**Watch Video Solution**

**92.** Hard woods have

A. 1.more of parenchyma

B. 2.vessels in abundance

C. 3.tracheids mainly

D. 4.non-porous nature

**Answer: B**



[Watch Video Solution](#)

**93.** Youngest heart wood is present

A. 1.in the centre

B. 2.just outside sapwood

C. 3.just inner sapwood

D. 4.just outside primary xylem

**Answer: C**



[Watch Video Solution](#)

94. Oldest phloem occurs on the outside of phloem/inner to pericycle.

It is actually

- A. primary phloem
- B. secondary phloem
- C. included phloem
- D. crushed secondary phloem

**Answer: A**



[Watch Video Solution](#)

95. Oldest xylem is that primary xylem found

- A. in the centre
- B. on the outside of phloem
- C. in the sap wood
- D. on the outside of xylem

**Answer: A**



**Watch Video Solution**

**96.** In monocot root, we observe

- A. polyarch, open, collateral vascular bundles
- B. subsieried exodermis, casparian strip, passage cell and c ambium
- C. subreized exodermis, polyarch xylem, exarch xylem, large pith
- D. exodermis, endarch, tetarch, closed vascular bundles

**Answer: C**



**Watch Video Solution**

**97.** What happens to primary xylem and primary phloem during secondary growth?



A. 1.They got separated far apart

B. 2.They get lost

C. 3.they develop pits

D. 4.They developed thickenings

**Answer: A**



[Watch Video Solution](#)

**98.** Duramen is used as timber because

A. it has large amount of vascular tissue

B. it has nutritive substances

C. it has secondary thickening

D. chemicals in tyloses provided durability.

**Answer: D**



[Watch Video Solution](#)

**99.** Medullary rays are mainly

- A. 1.composed of sclerenchyma cells
- B. 2.involved in storage of food
- C. 3.involved in radial transport of food and water
- D. 4.involved in vertical transport of food and water

**Answer: C**



**Watch Video Solution**

**100.** Companion cells are

- A. 1.small, thin walled living, enucleated
- B. 2.living, narrow, elongated, thin walled, nucleated
- C. 3.small, thick walled, living, nucleated

D. 4.large, thick walled nucleated

**Answer: B**



**Watch Video Solution**

**101.** Primary tissue of a plant

A. 1.add to the length of plant parts

B. 2.add to the diameter of plant parts

C. 3.are present in embryo only

D. 4.are found in seeding stage only

**Answer: A**



**Watch Video Solution**

**102.** If the dicot stem is stained for starch, the most intense colouration would develop in

- A. 1.apiblema
- B. 2.phloem is sandwiched by xylem
- C. 3.endodermis
- D. 4.pith

**Answer: C**



**Watch Video Solution**

**103.** The mismatched pair among the followings is

- A. pericycle-lateral roots
- B. endodermis-casparian bands
- C. autumn wood- vessels with larger diamete
- D. conjunctive parenchyma- cambium for secondary growth

**Answer: C**



**Watch Video Solution**

**104.** The bark of which plant is used as spices?

- A. Quercus
- B. Cinchona
- C. Cinnamon
- D. Betula

**Answer: C**



**Watch Video Solution**

**105.** When secondary growth in grith is initiated in dicot, root, which one of the following happens first?

- A. Primary medullary ray cells become meristematic
- B. The outer parenchymatous pericycle layer divides
- C. Parenchymatous cells below phelom and between xylem and phloem become meristematic
- D. Vascular cambium divides

**Answer: C**



**Watch Video Solution**

**106.** Suberin is a fatty acid alkaloid. It makes cork

- A. impermeable to water
- B. permeable to gases
- C. flexible
- D. stretchable

**Answer: A**



[Watch Video Solution](#)

107. Axillary bud and terminal bud are derived from the activity of

- A. lateral meristem
- B. apical meristem
- C. intercalary meristem
- D. parenchyma

**Answer: B**



[Watch Video Solution](#)

108. Which one is true ?

- A. 1. vessels are multicellular with wide lumen
- B. 2. Vessels are unicellular with narrow lumen.
- C. 3. Tracheids are multicellular with narrow lumen.

D. 4. Tracheids are unicellular with wide lumen.

**Answer: A**



[Watch Video Solution](#)

**109.** Dedifferentiation is a phenomenon of tissue in which

- A. some permanent cells get back to the meristematic nature
- B. cells lose the power of division
- C. state of maturity is attained
- D. all of the above.

**Answer: A**



[Watch Video Solution](#)

**110.** Main site of photosynthesis/starch synthesis is



A. palisade parenchyma

B. chloroplasts

C. Guard cells

D. bundle sheath cells

**Answer: A**



**Watch Video Solution**

**111.** Fusiform initials form

A. vascular rays

B. pith

C. cork

D. tracheary elements

**Answer: D**



**Watch Video Solution**

**112.** In the following how the sap wood is converted into heart wood

- A. By tylosis formation
- B. By deposition of extractives
- C. By degeneration of protoplast of living cells
- D. All of the above

**Answer: D**



**Watch Video Solution**

**113.** The apical meristem of shoot apex is

- A. intercalary meristem
- B. primary meristem
- C. secondary meristem

D. laterl meristem

**Answer: B**



**Watch Video Solution**

**114.** Bulliform cells differ from other cells in being

A. large, vacuolated thin walled

B. large, thick , green

C. samlle, thick green

D. thin walled withdeposits of calcium oxalate

**Answer: A**



**Watch Video Solution**

115. Sclerenchymatous patches as bundle sheath extensions are found in leaves of

- A. dicots
- B. monocots
- C. both of these
- D. none of these

**Answer: B**



[Watch Video Solution](#)

116. In grasses, the plant parts removed by the grazing herbivores regenerate due to active of

- A. intercalary meristem
- B. leaf primordium
- C. apical meristem

D. radial meristem

**Answer: A**



**Watch Video Solution**

**117.** In a woody dicotyledonous tree, which of the following parts wall mainly consist of primary tissues

- A. all parts
- B. stem and root
- C. fruits, flowers and leaves
- D. shoot tip and root tip

**Answer: D**



**Watch Video Solution**

**118.** A common structural feature of vessel elements and sieve tube elements is

- A. having P protein
- B. thick walls
- C. pores on lateral wall
- D. enucleate condition

**Answer: D**



**Watch Video Solution**

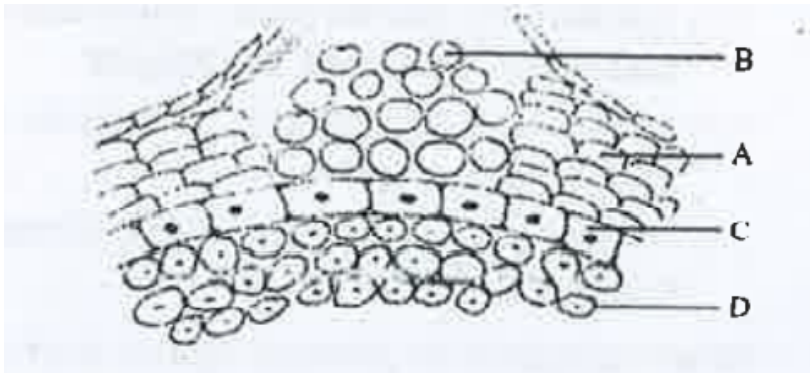
**119.** Lenticels differ from stomata in being

- A. living & green
- B. living, & capable of changing its shape
- C. dead, incapable of changing its shape and size
- D. dead, capable of changing its shape and size

Answer: C

[Watch Video Solution](#)

120. In a diagram, of lenticel, identify the parts of A,B,C,D



- A. A- phellem, B- complementary cells, C- phellogen, D- phelloderm
- B. A- phellem, B- complementary cells, C- phelloderm, D- periderm
- C. A- complementary cells, B- phelloderm, C- periderm, D- phelloderm
- D. A- complementary cells, B- phellem, C- periderm, D- phelloderm

Answer: A

[Watch Video Solution](#)

**121.** Cork cambium is commonly called as phelogen. It is

- A. Primary meristem
- B. secondary meristem
- C. apical meristem
- D. intercalary meristem

**Answer: B**



**Watch Video Solution**

**122.** Meristematic tissue in vascular bundle is

- A. phellem
- B. procambium
- C. fascicular cambium
- D. phellem



**Answer: D**



[Watch Video Solution](#)

**123.** For a critical study of secondary growth in plants, which one of the following pairs is suitable

- A. 1. Deodar and fern
- B. 2. Wheat and maiden hair fern
- C. 3. sugarcane and sunflower
- D. 4. teak and pine

**Answer: D**



[Watch Video Solution](#)

**124.** Passage cells are walled cells found in

- A. testa of seeds to enable emergence of growing embryonic axis during seed germination
- B. central region of style through which the pollen tube grows towards the ovary
- C. endodermis of roots facilitating repaired transport of water from cortex to pericycle
- D. phloem elements that serve as entry points for substances for transport to other plant parts

**Answer: C**



[Watch Video Solution](#)

**125.** Procambium forms

- A. Vascular cambium
- B. Cork cambium

C. Primary vascular bundle

D. Both (1) and (3)

**Answer: D**



**Watch Video Solution**

**126.** Go through the following statements

(i) Phloem parenchyma is absent in most of the monocot

(ii) Phloem fibres store food material and other substance like resins, latex and mucilage

(iii) Phloem fibres are generally absent in the primary phloem but are found in the secondary phloem

(iv) Gymnosperms lack sieve tubes and albuminous cells.

Which of these are correct ?

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

b. (ii), (iii) and (iv)

c. (i) and (iii)

d. (i), (iii) and (iv)

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

B. (ii), (iii) and (iv)

C. (i) and (iii)

D. (i), (iii) and (iv)

**Answer: C**



**Watch Video Solution**

**127.** Vascular bundles are surrounded on all sides by a sclerenchymatous sheath in

A. dicot stem

B. dicot root

C. monocot stem

D. monocot root

**Answer: C**

 [Watch Video Solution](#)

**128.** Which of the following is a false statement ?

- A. Pericycle is parenchymatous in dicot root.
- B. Pericycle gives rise to lateral branches in dicot stem
- C. Pericycle forms a part of cork cambium in dicot root.
- D. All of the above

**Answer: B**

 [Watch Video Solution](#)

**129.** All of the following are true about phloem except

- A. A nucleus is absent in the young sieve tube members
- B. The central part of sieve tube member is occupied by a network of canals containing fibrils of p-protein.

C. Sieve tubers are absent in gymnosperms

D. Phloem is also called bast.

**Answer: A**



**Watch Video Solution**

**130.** An injured meristem root will be replaced by

a. dermatogen

b. Calyptrogen

c. quiescent centre

d. Promeristem

A. dermatogen

B. Calyptrogen

C. quiescent centre

D. Promeristem

**Answer: C**



[Watch Video Solution](#)

**131.** All of the following are secondary meristems except

1. Intercalary meristems
  2. Lateral meristems
  3. Inter Fascicular cambium
  4. Cork cambium
- 
- A. Intercalary meristems
  - B. Lateral meristems
  - C. Inter Fascicular cambium
  - D. Cork cambium

**Answer: A**



[Watch Video Solution](#)

**132.** Petiole of leaf " cellulose deposits , No intercellular space : theses three relate together to

- A. parenchyma
- B. Collenchyma
- C. fibres
- D. Sclereids

**Answer: B**



[Watch Video Solution](#)

**133.** Match List-I with List-II and select the correct answer using one the codes given below the lists



List-I (Meristem)	List-II (Structure)
A. Apical meristem	1. Cambium
B. Lateral meristem	2. Internode
C. Intercalary meristem	3. Root apex
D. Secondary meristem	4. Cork cambium

A.  $A \ B \ C \ D$   
3 1 2 4

B.  $A \ B \ C \ D$   
1 2 4 3

C.  $A \ B \ C \ D$   
3 4 2 1

D.  $A \ B \ C \ D$   
4 3 2 1

**Answer: A**



**Watch Video Solution**

**134.** Consider the following statements

(i) Epidermis and cortex of monocot root are similar to those of dicot root.

(ii) Hypodermis of dicot stem consists of sclerenchymatous cells.

The cells of bundle sheath in maize leaf serve as temporary storage cells,

(4) The dicot leaf is hypostomatic.

which of these statements are correct ?

A. 1 and 2

B. 2,3 and 4

C. 1,3 and 4

D. 1,2,3 and 4

**Answer: C**



**Watch Video Solution**

**135.** Consider the following statements Lateral roots originate

1. Endogenously

2. From pericycle cells

3. Exogenously

4. From endodermal cells

which of these statements are correct ?

A. A)1 and 2

B. B)3 and 4

C. C)1 and 4

D. D)2 and 3

**Answer: A**



**Watch Video Solution**

**136.** Tree rings form when ..... Alternates with .....

A. 1. Alburnum, duramen

B. 2. Protoxylem, metaxylem

C. 3. Early wood, late wood

D. 4. Heartwood, sapwood

**Answer: C**



**Watch Video Solution**

**137.** define transpiration



**Watch Video Solution**

**138.** Removal of cork from the trees is to be done with care. Otherwise the tree can die. This is because

- A. The exylem layer transporting water and minerals can be damaged
- B. The phloem used in transporting the sugars can be damaged
- C. The inner pith with storage cells can be damaged
- D. none

**Answer: D**



**Watch Video Solution**

**139.** Age determination based on growth rings is not possible for trees growing in this type of forest

- A. Temperate deciduous
- B. Tropical evergreen
- C. Tropical deciduous
- D. Temperate evergreen

**Answer: B**



**Watch Video Solution**

**140.** The best differentiation of mesophyll tissue into adaxial palisade tissue and abaxial spongy tissue is seen in plants with leaves that are

1. Under water
2. Held vertical

3. Held horizontal

4. Succulent

A. Under water

B. Held vertical

C. Held horizontal

D. Succulent

**Answer: C**



**Watch Video Solution**

**141.** Which of the following statements are the functions of a medullary ray in plants ?

(i) Absorption

(ii) Secondary growth

(iii) Transmission of water and food

(iv) Seat of origin or inter-fascicular cambium

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

B. B)(i), (ii) and (iv)

C. C)(ii), (iii) and (iv)

D. D)Only (i) and (iii)

**Answer: C**



**Watch Video Solution**

**142.** Read the following statements

(i) Collenchyma contains lignin in its wall thickenings.

(ii) Collenchyma occurs in only aerial primary parts and is absent from the roots.

(iii) Trichomes are multicellular epidermal outgrowths, which also contain some inner tissues.

(iv) Xylem fibres often occur in metaxylem while they are absent or rare in protoxylem.

which of these are correct?

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

2. (i), (ii) and (iv)

3. (i) and (iii)

4. (ii) and (iv)

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

B. (i), (ii) and (iv)

C. (i) and (iii)

D. (ii) and (iv)

**Answer: D**



**Watch Video Solution**

**143.** Go through the following matches

- |       |                    |                                    |
|-------|--------------------|------------------------------------|
| (i)   | Monocot stem       | –Sclerenchymatous hypodermis       |
| (ii)  | Primary dicot root | –Parenchymatous medullary rays     |
| (iii) | Primary dicot root | –Parenchymatous conjunctive tissue |
| (iv)  | Monocot root       | –Parenchymatous pericycle          |

Which or the following



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

B. (i), (iii) and (iv)

C. (ii),(iii) and (iv)

D. All are correct

**Answer: B**



[Watch Video Solution](#)

**144.** Go through the following matches

- |       |                    |                                    |
|-------|--------------------|------------------------------------|
| (i)   | Monocot stem       | –Sclerenchymatous hypodermis       |
| (ii)  | Primary dicot root | –Parenchymatous medullary rays     |
| (iii) | Primary dicot root | –Parenchymatous conjunctive tissue |
| (iv)  | Monocot root       | –Parenchymatous pericycle          |

Which or the following



[Watch Video Solution](#)

**145.** Go through the following matches

- (i) Primary dicot stem – Sclerenchymatous hypodermis
- (ii) Monocot stem – Parenchymatous pit
- (iii) Dicot leaf – Praenchymatous pith
- (iv) Monocot leaf – Bulliform cells

Which or the following



**Watch Video Solution**

**146.** Go through the following statements

- (i) The cambium is generally more active on the inner side than on the outer.
- (ii) The autumn wood is darker and has a higher density than spring wood.
- (iii) In stem, the secondary xylem shows distinction into protoxylem and metaxylem and occurs in the form of patches.
- (iv) The tracheids and vessels of the sapwood get plugged by the ingrowth of the adjacent parenchyma cells into their cavities called tyloses.

Which of these are correct ?

a. (i), (ii) & (iii)

b. (i), (ii) & (iv)

c. (i) and (ii)

d. (i), (iii) & (iv)

A. (i), (ii) & (iii)

B. (i), (ii) & (iv)

C. (i) and (ii)

D. (i), (iii) & (iv)

**Answer: C**



**Watch Video Solution**

**147.** Radial conduction of water and food material in the woody stems is the function of

A. Endodermis

B. xylem fibres

C. Vessels

D. Vascular rays

**Answer: D**



**Watch Video Solution**

**148.** Intercalary meristem is derived from

A. lateral meristem

B. apical meristem

C. interfascicular cambium

D. protoderm

**Answer: B**



**Watch Video Solution**

**149.** Anatomically fairly old dicotyledonous root is distinguished from the dicotyledonous stem by

- A. 1.Presence of cortex
- B. 2.Position of protoxylem
- C. 3.Absence of secondary xylem
- D. 4.Absence of secondary phloem

**Answer: B**



[Watch Video Solution](#)

**150.** The annular and spirally thickened conducting elements generally develop in the protoxylem when the root or stem is

- 1. Widening
- 2. Differentiating
- 3. Maturing
- 4. Elogating

A. Widening

B. Differentiating

C. Maturing

D. Elogating

**Answer: B**



[Watch Video Solution](#)

**151.** In barely vascular bundles are

A. 1.open and in a ring

B. 2.closed and radial

C. 3.open and scattered

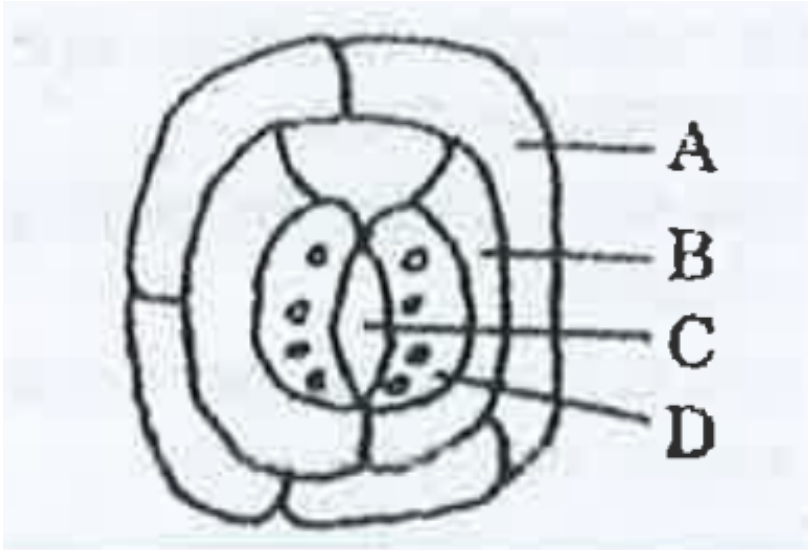
D. 4.closed and scattered

**Answer: D**



[Watch Video Solution](#)

152. Given below is the diagram of a stomatal apparatus. In which of the following all the four parts labelled as A, B, C, and D are correctly identified ?



- |    | <i>A</i>        | <i>B</i>          | <i>C</i>          | <i>D</i>          |
|----|-----------------|-------------------|-------------------|-------------------|
| 1. | Subsidiary cell | Epidermal cell    | Guard cell        | Stomatal aperture |
| 2. | Guard cell      | Stomatal aperture | Subsidiary cell   | Epidermal cell    |
| 3. | Epidermal cell  | Guard cell        | Stomatal aperture | Subsidiary cell   |
| 4. | Epidermal cell  | Subsidiary cell   | Stomatal aperture | Guard cell        |
- 
- |    | <i>A</i>        | <i>B</i>       | <i>C</i>   | <i>D</i>          |
|----|-----------------|----------------|------------|-------------------|
| A. | Subsidiary cell | Epidermal cell | Guard cell | Stomatal aperture |

B.

*A*                      *B*                      *C*                      *D*  
Guard cell   Stomatal aperture   Subsidiary cell   Epidermal cell

C.

*A*                      *B*                      *C*                      *D*  
Epidermal cell   Gurad cell   Stomatal aperture   Subsidiary cell

D.

*A*                      *B*                      *C*                      *D*  
Epidermal cell   Subsidiary cell   Stomatal aperture   Guard cell

**Answer: D**



**Watch Video Solution**

**153.** who coined the term linkage



**Watch Video Solution**

**154.** heart wood differs from sapwood in

A. being susceptible ot pests and pathogens



- B. presence of rays and fibres
- C. absence vessels and parenchyma
- D. having dead and non-conducting elements

**Answer: D**



**Watch Video Solution**

**155.** An example of monocots showing secondary growth in stem is

- A. sugarcane
- B. Wheat
- C. Maize
- D. Yucca

**Answer: D**



**Watch Video Solution**

**156.** Bulliform or motor cells take part in

- A. 1.providing strength to leaves
- B. 2. curling of leaves
- C. 3.drooping of leaves
- D. 4.protection of leaves

**Answer: B**



**Watch Video Solution**

**157.** Heart wood is the

- A. 1.outer part of secondary xylem
- B. 2.inner part of secondary xylem
- C. 3.outer part of secondary phloem
- D. 4.inner part of secondary phloem

**Answer: B**



**Watch Video Solution**

**158.** Some vascular bundles are described as open because these

- A. 1. are surrounded by pericycle but not endodermis
- B. 2. are capable of producing secondary xylem and phloem
- C. 3. possess conjunctive tissue between xylem and phloem
- D. 4. are not surrounded by pericycle

**Answer: B**



**Watch Video Solution**

**159.** In Kranz anatomy, the bundle sheath cells have

- A. thin walls, many intercellular spaces and no chloroplasts

- B. thick walls, no intercellular spaces and large number of chloroplasts
- C. thin walls, no intercellular spaces and several chloroplasts
- D. thick walls many intercellular spaces and few chloroplasts

**Answer: B**



[Watch Video Solution](#)

**160.** Ground tissue includes

- A. All tissues external to endodermis
- B. All tissues except epidermis and vascular bundles
- C. Epidermis and cortex
- D. All tissues internal to endodermis

**Answer: B**



[Watch Video Solution](#)

**161.** In land plants the guard cells differ from other epidermal cells in having

- A. cytoskeleton
- B. mitochondria
- C. endoplasmic reticulum
- D. chloroplasts

**Answer: D**



**Watch Video Solution**

**162.** The cork cambium, cork and secondary cortex are collectively called

- A. phelloderm
- B. phellogen
- C. periderm
- D. phellem

**Answer: C**

 [Watch Video Solution](#)

**163.** Which of the following meristem classification is based on position in the plant body ?

- A. Primary meristem
- B. intercalary meristem
- C. secondary meristem
- D. Procambial meristem

**Answer: B**

 [Watch Video Solution](#)

**164.** Which is not true for anatomy of the Dicot stem ?

- A. Hypodermis is collenchymatous
- B. Vascular bundles are arranged in a ring
- C. Vascular bundles are conjoint and closed
- D. phloem parenchyma is present

**Answer: C**

 [Watch Video Solution](#)

**165.** as compared to a dicot root, a monocot root has

- A. 1.inconspicuous annual rings
- B. 2.relatively thicker periderm
- C. 3.more abundant secondary xylem
- D. 4.many xylem bundles

**Answer: D**

 [Watch Video Solution](#)

**166.** The cambium which produces cork is known as

Or

The common bottle cork is a product of

Or

The meristem that is parallel to the longitudinal axis of the plant is

A. phellogen

B. Xylem

C. Vascular Cambium

D. dermatogen

**Answer: A**



**Watch Video Solution**

**167.** Water containing cavities in vascular bundles are found in



A. 1. Maize

B. 2.Cycas

C. 3.Pinus

D. 4.Sunflower

**Answer: A**



**Watch Video Solution**

**168.** Companion cells are closely associated with

Or

Transport of food material in higher plants takes place through

A. 1.Vessel elements

B. 2.Trichomes

C. 3.Guard cells

D. 4.Sieve elements

**Answer: D**



**Watch Video Solution**

**169.** The elements of xylem tissue that store tannins are

- A. trachedis
- B. vessels in abundance
- C. xylem fibres
- D. xylem parenchyma

**Answer: D**



**Watch Video Solution**

**170.** The commercial jute fibres are obtained from

- A. sieve fibres

B. xylem fibres

C. phloem fibres

D. fibres of mesocarp of coconut

**Answer: C**



[Watch Video Solution](#)

**171.** A common character of monocot and dicot roots is

A. exarch protoxylem

B. number of xylem strands

C. endarch protexylem

D. occurrence of secondary growth

**Answer: A**



[Watch Video Solution](#)

172. A cut trunk shows 26 concentric rings of spring wood and autumn wood in alternate rows. The age of trunk would be

- A. 13 years
- B. 26 years
- C. 52 years
- D. 104 years

**Answer: A**



[Watch Video Solution](#)

173. Casparian strips are present in the \_\_\_\_\_ of the root

- A. epiblema
- B. cortex
- C. pericycle
- D. endodermis

**Answer: D**



[Watch Video Solution](#)

**174.** Vascular bundle having phloem at the centre encircled by xylem is know as

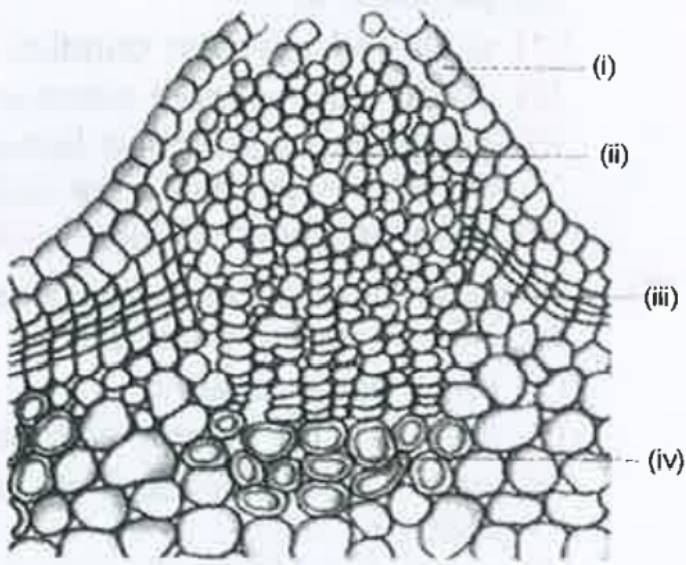
- A. bicollaterla
- B. conjoint collateral
- C. amphivasal
- D. ampicribral

**Answer: C**



[Watch Video Solution](#)

**175.** Go through the following diagram carefully which of the following represents the correct labelling ?



A. A)            (i)            (ii)            (iii)            (iv)  
 Cuticle    Complimentary cells    Cork cambium    Pericylce

B. B)  
                   (i)            (ii)            (iii)            (iv)  
 Epidermis    Complimentary cells    Cork cambium    secundar cortex

C. C)  
                   (i)            (ii)            (iii)            (iv)  
 Epidermis    Cork cambium    Complimentary cells    secondary corte

D. D)  
                   (i)            (ii)            (iii)            (iv)  
 Epidermis    Complimentary cell    secondary cortex    Cork cambium

**Answer: B**

**176.** Lenticels are involved in

- A. Food transport
- B. Photosynthesis
- C. Transpiration
- D. Gaseous exchange

**Answer: D**



Watch Video Solution

**177.** Interfascicular cambium develops from the cells of

- A. endodermis
- B. Pericycle
- C. Medullary rays

D. xylem parenchyma

**Answer: C**



[Watch Video Solution](#)

**178.** Age of tree can be estimated by

- A. 1.number of annual rings
- B. 2.diameter of its heartwood
- C. 3. its height and girth
- D. 4.biomass

**Answer: A**



[Watch Video Solution](#)

**179.** Tracheids differ from other tracheary elements in



- A. being lignified
- B. having casparian strips
- C. being imperforate
- D. lacking nucleus

**Answer: C**

 [Watch Video Solution](#)

**180.** you are given a fairly old piece of dicot stem and a dicot root. Which of the following anatomical structures will you use to distinguish between the two.

- A. 1.Cortical cells
- B. 2.Secondary xylem
- C. 3.Secondary phloem
- D. 4.Protoxylem

**Answer: D**



[Watch Video Solution](#)

**181.** A major characteristic of the monocot root is the presence of

- A. scattered vascular bundles
- B. vasculature without cambium
- C. cambium sandwiched between phloem and xylem along the radius
- D. open vascular bundles

**Answer: B**



[Watch Video Solution](#)

**182.** Vascular bundles in monocotyledons are considered closed because :

- A. cambium is absent

B. there is surrounded all perforations

C. xylem is surrounded all around by phelom

D. a bundle sheath surround each nudle

**Answer: A**



**Watch Video Solution**

**183.** Read the different components from (A) to (D) in the list given below and tell the correct order of the components with reference to their arrangement from outer side to inner side in a woody dicot stem

(A) Secondary cortex , (B) Wood

(C) Secondary phloem , (D) Phellem

A. (iv), (i), (iii), (ii)

B. (i), (ii), (iv), (iii)

C. (iii), (iv), (ii), (i)

D. (iv), (iii), (i), (ii)

**Answer: C**



**Watch Video Solution**

**184.** Specialised epidermal cells surrounding the guards cells are called

- A. Subsidiary cells
- B. Bulliform cells
- C. Lenticels
- D. Complementary cells

**Answer: A**



**Watch Video Solution**

**185.** Cortex is the region found between

- A. epidermis an stele

- B. pericycle and endodermis
- C. endodermis and pith
- D. endodermis and vascular bundle

**Answer: A**



[Watch Video Solution](#)

**186.** the balloon- shaped structures called tyloses

- A. originate in the lumen of vessels
- B. characterize the sapwood
- C. are extensions of xylem parenchyma cells into vessels
- D. are linked to the ascent of sap through xylem vessels

**Answer: C**



[Watch Video Solution](#)

**187.** Identify the wrong statement in context of heartwood

- A. Organic compounds are deposited in it
- B. It is highly durable
- C. It conducts water & minerals efficiently
- D. It comprises dead elements with highly lignified walls

**Answer: C**



**Watch Video Solution**

**188.** Root hairs develop from the region of

- A. maturation
- B. elongation
- C. root cap
- D. mesistematic activity

**Answer: A**



**Watch Video Solution**

**189.** Which of the following is made up of dead cells

- A. Xylem parenchyma
- B. Collenchyma
- C. Phellem
- D. Phloem

**Answer: C**



**Watch Video Solution**

**190.** The vascular cambium normally gives rise to

- A. phelloderm

B. primary phelome

C. secondary xylem

D. periderm

**Answer: C**



**Watch Video Solution**

**191.** Secondary xylem and phloem in dicot stem are produced by

A. Axillary meristems

B. Phellogen

C. Vascular Cambium

D. apical meristem

**Answer: C**



**Watch Video Solution**



192. casparian strips are present in the of the root.

- A. Endodermis
- B. Cortex
- C. Pericycle
- D. Epidermis

**Answer: A**



**Watch Video Solution**

193. Plants having little or no secondary growth are

- A. Cycads
- B. Conifers
- C. Deciduous angiosperms
- D. Grasses

**Answer: D**



**Watch Video Solution**

**194.** Stomata in grass leaf are

- A. Barrel shaped
- B. rectangular
- C. Kidney shaped
- D. Dumb-bell shaped

**Answer: D**



**Watch Video Solution**