

Question Bank

S.Y. B.Sc. Sem-III

Subject:- Plant Anatomy (Botany)

1. The waxy substance associated with the wall of the cork cell is

- a. Lignin
- b. Hemicellulose
- c. Cutin**
- d. Suberin

2. A tissue that does not contain lignin

- a. Sclerenchyma
- b. Parenchyma**
- c. Collenchyma
- d. Chlorenchyma

3. Lateral roots originate in

- a. Cortex
- b. Endodermal cells
- c. Pericycle**
- d. Cork cambium

4. Which gives rise to the cork tissue?

- a. Periblem
- b. Phellogen**
- c. Phelloderm
- d. Periderm

5. Which are the external protective tissues of the plant?

- a. Cortex and epidermis
- b. Cork and cortex
- c. Pericycle and cortex
- d. Epidermis and cork**

6. Following is the characteristic of collenchyma

- a. Elongated cells with thickened corners**
- b. Isodiametric cells with thickened walls
- c. Elongated cells with deposits of cellulose and pectin
- d. Isodiametric cells with deposits of cellulose and pectin

7. Casparian strips are found in

- a. Epidermis
- b. Endodermis**
- c. Exodermis
- d. Pericycle

8. The apical meristem of the root is found in

- a. Taproots
- b. Radicals
- c. Adventitious roots
- d. All the roots**

9. Bordered pits are found in

- a. Vessel wall**
- b. Sieve cells
- c. Sieve tube
- d. Companion cells

10. Intercalary meristem results in

- a. Primary growth**
- b. Secondary growth
- c. Apical growth
- d. None

11. The age of the tree can be determined by

- a. Measuring its diameter
- b. Counting the number of annual rings**
- c. Counting the number of leaves
- d. Finding out the number of branches

12. Which meristem helps in increasing the girth of the plant?

- a. Primary meristem
- b. Apical meristem
- c. Intercalary meristem
- d. Lateral meristem**

13. Fibres associated with phloem

- a. Wood fibres
- b. Bast fibres**
- c. Hard fibres
- d. Surface fibres

14. In angiosperms, xylem is made up of

- a. Tracheids and fibres
- b. Tracheids and vessels**
- c. Vessels and fibres
- d. All of the above

15. Which of the following has a perforated cell wall?

- a. Vessel**
- b. Fibre
- c. Tracheid

d. Sclereid

16. How many radial vascular bundles are found in dicot roots?

- a. **Four**
- b. Six
- c. Two
- d. One

17. Bicollateral bundles are found in the stem of

- a. Pumpkin
- b. Sunflower
- c. **Dracaena**
- d. Gram

18. Vascular bundles in dicot stem are

- a. Closed, conjoint, endarch
- b. **Open, conjoint, endarch**
- c. Closed, conjoint, exarch
- d. Open, conjoint, exarch

19. Wound healing in plants is initiated by

- a. Apical meristem
- b. Lateral meristem
- c. **Secondary meristem**
- d. Intercalary meristem

20. The term Meristem is given by

- a. **Nageli**
- b. Cohn
- c. Hanstein
- d. Schmidt

21. Fibers associated with phloem are

- a. **Bast fibers**
- b. soft fibers
- c. thick
- d. Hard fibers

22. Sieve plate and sieve pores are located in the

- a. Lateral wall of sieve cells
- b. Wall of companion cells
- c. **End wall of sieve tube**
- d. End wall of sieve cells

23. Wood is common name of

- a. **Secondary xylem**

- b. Cambium
- c. Vascular bundles
- d. Phloem

24. Sclereids is a

- a. Parenchymatous cells
- b. An individual sclerenchymatous cell**
- c. Collenchymatous cell
- d. Chlorenchymatous cell

25. In leaf ,elongated cylindrical cells are seen in

- a. Palisade parenchyma**
- b. Spongy parenchyma
- c. Lower epidermis
- d. Upper epidermis

26. Apical,intercalary and lateral meristems are recognized on the basis of

- a.location**
- b.origin
- c.function
- d.development

27. Plant length growth is accomplished by.....

- a.apical mersitem**
- b.cambia
- c.Intercalary meristem
- d.Mass meristem

28.The vascular cambium and cork cambium are the examples of

- a.Apical meristem
- b.Lateral meristem**
- d.Ground tissue

29.Cork cambium is produced from

- a.Apical meristem
- b.Lateral meristem
- c.Intercalary meristem
- d.Ground tissue**

30.The intrastelar secondary lateral meristem in dicot stem is

- a.interfascicular cambium
- b.fascicular cambium**
- c.cork cambium
- d.absent

31.The cambium is

- a.Lateral meristem**
- b.Apical mersitem

- c. Intercalary meristem
- d. Secondary meristem

32. The meristem derived from the promeristem is called

- a. Primary meristem**
- b. Lateral meristem
- c. Apical meristem
- d. Seasonal meristems

33. Inter fascicular cambium and cork cambium belong to the

- a. Primary meristems
- b. Secondary meristems**
- c. Apical meristems
- d. Seasonal meristems

34. The meristem derived from permanent tissue is known as

- a. Secondary meristem**
- b. Lateral meristem
- c. Primary meristem
- d. Intercalary meristem

35. The secondary meristem is responsible for

- a. growth in width**
- b. growth in length
- c. primary growth
- d. storing food

36. Which of the following is not a simple tissue

- a. xylem**
- b. Parenchyma
- c. collenchyma
- d. sclerenchyma

37. Collenchyma constitute the hypodermis in

- a. hypodermis
- b. epidermis
- c. phloem
- d. inner cortex**

38. The simple tissue consisting of living cells and providing mechanical strength to plants is

- a. Collenchyma**
- b. Sclerenchyma
- c. Parenchyma
- d. Chlorenchyma

39. The husk of coconut is made up of

- a. Sclerenchyma**
- b. Collenchyma
- c. Apical meristem
- d. Intercalary

40. Which of the following is not true about 'sclereids'?

- a. These are groups of living cells**
- b. These are found in nut shells, guava pulp, pear
- c. These are also called stone cells
- d. These are form of sclerenchyma with fibres.

41. Examples of dead cells are

- a. stone cells, xylem fibres**
- b. parenchyma, collenchyma
- c. Sclerenchyma, collenchymas
- d. chlorenchyma, palisade

42. Xylem and phloem belong to the group of

- a. Complex tissues**
- b. Simple tissues
- c. Specialized tissue
- d. Laticiferous tissue

43. Xylem consists of

- a. Tracheids, vessels, fibres and parenchyma**
- b. Tracheids, vessels and companion cells
- c. Tracheids, fibres and parenchyma
- d. Tracheids, vessels, sieve cells and companion cells

44. Wood is common name of

- a. Secondary xylem**
- b. Cambium
- c. vascular bundles
- d. phloem

45. Phloem consists of

- a. Vessels, sieve tube cells, phloem parenchyma, phloem fibres
- b. Sieve tube cells, companion cells, phloem parenchyma, phloem fibres**
- c. Vessels, tracheids, phloem parenchyma, phloem fibres
- d. Vessels, tracheids, sieve tube cells, companion cells

46. The dead element present in the phloem is

- a. phloem fibres**

- b.companion cells
- c.phloem parenchyma
- d.sieve tube cells

47.The function of sieve tubes is to

- a.Translocate organic food**
- b.Translocate water and minerals
- c.Sieve the passing substance
- d.Eliminate water from organic food

48.Companion cells are

- a.Living and nucleated**
- b.Living and non nucleated
- c.Dead and non nucleated
- d.Dead but nucleated

49.Which of the following are the examples of phloem fibres?

- a.Jute
- b.hemp
- c.flax
- d.all of the above**

50. External protective tissue of plants are

- a.Epidermis and cork**
- b.Pericycle and cortex
- c.Cortex and epidermis
- d.Pericycle and cork

51.The epidermis secretes a waxy coating called the,which keeps water inside the leaf.

- a.Cuticle**
- b.Cambium
- c.Cortex
- d.Epidermis

52.Piliferous layer of root is actually

- a.Epidermis**
- b.cortex
- c.Endodermis
- d.Pericycle

53.Trichomes are uni- or multicellular structures that originate from

- a.Epidermal cells**
- b.hypodermis
- c.collenchyma
- d.sclerenchyma

54.The trichome which is made up of more than one cell is known

- a.Multicellular trichome**
- b.unicellular trichome
- c.long trichomes
- d.short trichomes

55.Functional aspect of trichomes is

- a.preventing water loss
- b.secretion
- c.protection
- d.All of the above**

56.The heating effect of sunlight is reduced by

- a.Trichomes**
- b.stomata
- c.guard cells
- d.subsidiary cells

57.The trichomes which secrete various substances are known as

- a.glandular trichomes**
- b.no glandular trichomes
- c.stellate hairs
- d.dendroid hairs

58.The covering hairs which does not secrete the any substance are known as

- a.non-galndular trichomes**
- b.glandular trichomes
- c.stellate hairs
- d.dendroid hairs

59.The trichomes appear like a star is

- a.stellate hair**
- b.dendroid hairs
- c.glandular trichomes
- d.peltate hairs

60.The stellate hairs are

- a.Star shaped**
- b.tree like in appearance
- c.disc shaped
- d.angular

61.The branched trichomes appear like tree is

- a.dendroid hairs**
- b.stellate hairs
- c.glandular trichomes
- d.peltate hair

62.The shield shaped trichomes are known as

a.peltate hair

b.glandular trichomes

c.dendroid hairs

d.stellate hair

63.Ranunculaceous stomata are also known as

a.Anomocytic stomata

b.Anisocytic stomata

c.Paracytic stomata

d.Diacytic stomata

64.Number of subsidiary cells present in rubiaceous stomata is

a.two

b.three

c.four

d.many

65.Number of subsidiary cells present in caryophyllaceous stomata is

a.two

b.three

c.four

d.many

66.Number of subsidiary cells present in cruciferous stomata is

a.three

b.two

c.four

d.many

67.Cruciferous stomata are also known as

a.Anisocytic stomata

b.Anomocytic stomata

c.Paracytic stomata

d.Diacytic stomata

68.Rubiaceous stomata are also known as

a.Paracytic stomata

b.Anisocytic stomata

c.Anomocytic stomata

d.Diacytic stomata

69.Caryophyllaceous stomata are also known as

a.cross celled

b.parrallel celled

c.unequal celled

d.irregular celled

70. Graminaceous stoma possesses two guard cells that are shaped like

- a. dumbbell shaped**
- b. kidney
- c. Spherical
- d. rectangular

71. The stomata found only in monocots is

- a. Graminaceous stomata**
- b. Rubiaceous stomata
- c. Caryophyllaceous stomata
- d. Cruciferous stomata

72. Bulliform cells are present in

- a. epidermis**
- b. Bundle sheath
- c. Mesophyll tissue
- d. Vascular bundle

73. Pith and cortex do not differentiate in

- a. monocot stem**
- b. dicot stem
- c. monocot root
- d. dicot root

74. In maize stem, the peripherally located bundles are normally

- a. Large in size
- b. Well organized
- c. Small in size**
- d. Less organized

75. Ground tissue is differentiated into extrastelar and stellar regions in

- a. dicot stem**
- b. monocot stem
- c. monocot leaf
- d. dicot leaf

76. Cortex lies between

- a. Epidermis and stele**
- b. Epidermis and endodermis
- c. Endodermis and pith
- d. Hyodermis and endodermis

77. Endodermis is a part of

- a. Cortex**
- b. Hypodermis
- c. Stele

d.Pith

78.Endodermis is always absent in

a.Monocot stem

- b.Monocot root
- c.Dicot root
- d.Dicot stem

79.Casparian strips are the characteristics of

a.Endodermis

- b.Cortex
- c.Pericycle
- d.Pith

80.Passage cells are found in

a.Endodermis

- b.Pericycle
- c.Hypodermis
- d.Epidermis

81. When cambium is present, the vascular bundle is called

a.Open

- b.Close
- c.Radial
- d.Conjoint

82. When protoxylem faces pericycle, it is called

a.Exarch

- b.Endarch
- c.Mesarch
- d.Polyarch

83. The exarch condition is found in

a.Roots

- b.Petiole
- c.Leaves
- d.Stem

84. When protoxylem faces pith, condition is called

a.Endarch

- b.Exarch
- c.Mesarch
- d.None of the above

85. In stem, the xylem is a feature of

a.Endarch development

- b.Tetrarch development
- c.Polyarch development
- d.Exarch development

86. T.S of dicot stem shows

- a. Vascular bundles arranged in a ring**
- b. Scattered vascular bundles
- c. Closed vascular bundles
- d. Radial vascular bundles

87. conjoint, collateral and open vascular bundles are present in

- a. dicot stem**
- b. Monocot stem
- c. Dicot root
- d. Monocot root

88. Vascular bundles possess prominent sclerenchymatous sheaths in

- a. Monocot stem**
- b. Dicot stem
- c. Monocot root
- d. Dicot root

89. In the veins of leaves, the phloem is situated towards

- a. Lower epidermis**
- b. Upper epidermis
- c. All around the xylem
- d. Lateral to xylem

90. Bundle sheath around vascular bundle is absent in

- a. Dicot stem
- b. Monocot stem
- c. Bryophytes**
- d. none

91. In stems the protoxylem lies toward And metaxylem lies toward the respectively.

- a. Periphery, centre
- b. Centre, periphery**
- c. Above, below
- d. Below, above

92. Radial V.B are found in

- a. Root**
- b. leaf
- c. Stem
- d. Flower

93. The microscopic structure of T.S of sunflower stems shows.....

- a. Epidermis, Cortex (hypodermis, general cortex, endodermis, and stele (Pericycle, Medullary rays, Vascular bundles and pith)).**
- b. Epidermis, Hypodermis, Ground tissues and vascular bundles .
- c. Epiblema, Cortex, Endodermis, Pericycle, Vascular bundles and Pith.

d.Epidermis,Mesophyll and Vascular bundles.

94.The microscopic structure of T.S of maize stems shows.....

a.Epidermis,Hypodermis,Ground tissues and Vascular bundles

b.Epidermis,Cortex(hypodermis,general cortex,endodermis),and stele(Pericycle,Medullary rays,Vascular bundles and pith).

c.Epiblema,Cortex,Endodermis,Pericycle,Vascular bundles and Pith.

d.Epidermis,Mesophyll and Vascular bundles

95.The microscopic structure of T.S of sunflower root and Maize root shows.....

a. Epiblema,Cortex,Endodermis,Pericycle,Vascular bundles and Pith

b. Epidermis,Hypodermis,Ground tissues and vascular bundles

c.Epidermis,Cortex(hypodermis,general cortex,endodermis),and stele(Pericycle,Medullary rays,Vascular bundles and pith).

d.Epidermis,Mesophyll and Vascular bundles

96.The microscopic structure of T.S of Sunflower leaf shows

a.Epidermis,Mesophyll(palisade and spongy tissue) and vascular bundles

b.Epiblema,corte,endodermis,Pericycle,Vascular bundles and pith

c.Epidermis,Hypodermis,Ground tissues and Vascular bundles

d. Epidermis,Cortex(hypodermis,general cortex,endodermis),and stele(Pericycle,Medullary rays,Vascular bundles and pith).

97.The microscopic structure of T.S of Maize leaf shows

a.Epidermis,Mesophyll and Vascular bundles

b.Epiblema,Cortex,Endodermis,Pericycle,Vascular bundles and Pith

c.Epidermis,Hypodermis,Ground tissues and vascular bundles

d.Epidermis,Cortex(hypodermis,general cortex,endodermis),Pericycle,Medullary rays,Vascular bundles and pith

98.In maize stem the vascular bundles are

a.scattered but smaller towards periphery

b.Scattered-irregularly

c.Arranged in a ring

d.Arranged in two ring

99.Desert grasses often roll their leaves due to presence of

a.Bulliform cells

b.Oily surface

c.Spines

d.All of these

100.Vessels are arranged in v or Y shaped manner

a.xylem

b.phloem

c.Cortex

d.parenchyma

101. The tissue that lies between the upper and lower epidermis of the leaf is known as

- a. Mesophyll**
- b. Sclerenchyma
- c. Fibers
- d. Veins

102. What tissue makes up most of the wood of a tree?

- a. Primary xylem
- b. mesophyll cells
- c. secondary xylem**
- d. secondary phloem

103. Which of the following meristems is responsible for extrastelar secondary growth in dicotyledonous stem?

- a. Phellogen**
- b. interfascicular cambium
- c. Intercalary meristem
- d. intrafascicular cambium

104. Cork cells are

- a. Dead**
- b. Photosynthetic
- c. Elongated and participate in movement
- d. Meristematic

105. Arrange the following in the sequence, starting from the periphery towards centre of plant

- a. phellem, phellogen, phelloderm**
- b. phellogen, phelloderm, phellem
- c. phelloderm, phellogen, phellem
- d. none

106. Another name of phellogen is

- a. cork cambium**
- b. cork
- c. phelloderm
- d. cork cells

107. Ray initials are found in

- a. Cork cambium
- b. vascular cambium
- c. lateral meristem
- d. ground tissue**

108. A dead portion of the plant stem that provides protection, strength and support is the

- a. bark**
- b. xylem
- c. phloem
- d. petiole

109. Intrafascicular cambium is situated

- a. Between xylem and phloem**
- b. Between vascular bundles
- c. Outside the vascular bundles
- d. Inner side of the vascular bundles

110. Interfascicular cambium is situated

- a. In between vascular bundles**
- b. outside vascular bundles
- c. Inside vascular bundles
- d. in pith

111. Pits are formed on the cell wall due to lack of

- a. Secondary wall material**
- b. cell plate
- c. Primary wall material
- d. Middle lamella

112. Cambium activity is highest in

- a. Spring**
- b. winter
- c. Autumn
- d. rainy

113. Alternate name of heart wood is

- a. Duramen**
- b. Alburnum
- c. Primary xylem
- d. Spring wood