

PLANT HISTOLOGY AND ANATOMY

1) The parenchyma and collenchyma differ from sclerenchyma in
a) having large vacuole b) having suberized walls with pits
c) capacity to de-differentiate
d) that they are formed from different type of meristematic cells

a) a and c b) b and d c) c and d d) a and b

2) Endosperm tissue confirms to a

a) promeristem b) primary meristem
c) mass meristem d) secondary meristem

3) The cells of root apex and shoot apex are

a) Promeristem b) Primary meristem
c) Mass meristem d) Secondary meristem

4) The sieve tubes of phloem are

a) immature living cells b) mature dead cells
c) incomplete living cells d) normal living cells

5) The living components of vascular bundles are

a) tracheae, companion cells, parenchyma
b) sieve tubes, companion cells, parenchyma
c) sieve tubes, fibres, tracheids
d) parenchyma, sieve tubes, tracheids

6) Plasmodesmata is usually observed between

a) sieve tubes and phloem parenchyma
b) trachea and xylem fibres
c) xylem parenchyma and xylem fibres
d) sieve tubes and companion cells

15) Extra xylary fibres belong to

- a) phloem and pericycle
- b) cortex and pericycle
- c) cortex and phloem
- d) all these parts

16) Fascicular cambium is an example for which meristem?

- a) primary and lateral
- b) secondary and lateral
- c) primary and apical
- d) secondary and apical

17) A typical parenchyma cell does not possess one of the following?

- a) cell wall
- b) nucleus
- c) vacuole
- d) chloroplast

18) A complex tissue xylem is composed of

- a) dead tissues only
- b) both living and dead tissues
- c) living tissues only
- d) actively dividing tissues

19) cork cambium originates from

- a) interfascicular cambium
- b) intra fascicular cambium
- c) vascular cambium
- d) tissue outside the vascular cambium

20) Radial vascular bundle is found in

- a) dicot stem
- b) monocot stem
- c) both dicot and monocot root
- d) dicot leaf

21) The vascular bundles in cucurbit stem are

- a) Radical
- b) collateral
- c) concentric
- d) Bicollateral

22) In dorsiventral leaf, the protoxylem is situated

- a) Towards dorsal epidermis
- b) Towards ventral epidermis
- c) Not distinct
- d) Towards pith.

23) Girdling (ringing) experiments can not be performed in sugarcane because

- a) Phloem in it is situated internal to xylem
- b) It can not withstand injury
- c) Vascular bundles in it are scattered
- d) Sugarcane plants are too delicate.

24) which of the following tissues is composed of mainly dead cells
a) Phloem b)Epidermis c)Xylem d)Endodermis

25)Lignin is a component of the secondary cell walls of
a)Epidermis b)collenchyma c)sclerenchyma d)paranchyma

26) The sclereids in the flesh of the fruits of chaenomeles, Pyrus, Psidium are..... sclereids
a)Macro b)astro c)brachy d)tricho.

27)Hypodermis of dicot stem is composed of
a) parenchyma b)collenchyma c)sclerenchyma d)bast fibres

28) Collenchyma differs from sclerenchyma in
a) retaining protoplasm at maturity b)having thick walls
c) having inside lumen d)being dead.

29)Eucleated cells at maturity are
a)palisade cells b)guard cell c)companion cell d)sieve elements

30)Wound healing is mainly due to
a)primary meristem b)Secondary meristem c)Inter callary system d)All of the above

31)Malpighian cells are
a)Brachy sclerids b)Macro sclearids c)astro sclerids d)Tricho sclerids

32)The stem of grasses and related plants elongated by the activity of
a)Apical meristem b)lateral meristem c)Inter calary meristem d)Both apical and intercallry system

33)The apical meristem of the roots is present
a)only in radicals b)only in taproots c)only in adventitious roots d)in all the roots

34) Motor cells help in

a) Inward rolling of leaves b) Transpiration c) Guttation d) all of above

35) Rhizodermis is the outermost covering of

a) stem b) root c) leaf d) above

36) Multiple epidermis on the dorsal and ventral side of leaf is found in

a) Zea mays b) Ficus bengalensis c) wheat d) Mangifera indica

37) Histogen theory states that epidermis derived from

a) periblem b) cortex c) dermatogen d) cambium

38) Starch sheath is

a) endodermis of monocot stem b) endodermis of dicot stem
c) petiole of leaf d) endodermis of monocot root

39) Bast fibres are frequently found in

a) primary xylem b) primary phloem c) secondary xylem d) secondary phloem

40) Sunken stomata are present in

a) mesophyte b) xerophyte c) epiphytes d) all above

41) In a large tree most metabolic energy is utilized by

a) cambium b) cork c) storage tissue d) root parenchyma

42) Increase in length of plant axes is caused by

a) cork cambium b) vascular cambium c) apical meristem d) mitotic division in pith and cortex

43) The vascular cambium is

a) Primary in origin and primary in function
b) Secondary in origin and primary in function
c) Secondary in origin and secondary in function
d) Primary in origin and secondary in function

44) Aerenchyma helps plant to
a) Attachment b) Exchange of air c) Float on water d) Mechanical support

45) Which one is the living mechanical tissue
a) Parenchyma b) Collenchyma c) Sclerenchyma d) All of these

46) The tissue that gives rise to all kinds of tissues is
a) Parenchyma b) Sclerenchyma c) Collenchyma d) Aerenchyma

47) Parenchyma stores large quantities of water in
a) Succulents b) Xerophytes c) Halophytes d) Heliophytes

48) Chlorenchyma consists of
a) Fibres b) Sclerenchymatous tissues c) Collenchymatous Tissues
d) Parenchymatous tissues

49) Coir is a fiber obtained from
a) Bark b) Pericarp c) Leaves d) Stem

50) Tannins appear in the parenchyma cells
a) Between cell wall and plasma membrane b) On the plasma membrane
c) In the cytoplasm
d) Inside the vacuole.

51) In which of the following growth is sub-apical?
a) shoot b) root c) petiole d) pedicel

52) Which of the following is originated from embryonic shoot?
a) primary meristem b) apical meristem c) primordial meristem
d) secondary meristem

53) Collenchyma is absent in
a) leaf b) stem c) root d) all these

54) Eucleated elements of mature phloem are
a) bast fibres b) sieve elements c) phloem parenchyma d) companion cells

55) Phloem of monocot stem is composed of
a) sieve cells and sieve tubes b) sieve tubes and companion cells
c) sieve tubes, companion cells and phloem parenchyma d) sieve tubes only

56) Type of vascular bundles present in stems are
a) collateral and exarch b) collateral and endarch c) collateral and open d) collateral and closed

57) The end walls of vessel elements are
a) Usually oblique b) Rarely oblique c) Usually transverse d) Usually vertical

58) Bordered pits are very common in
a) Monocotyledons b) Gymnosperms c) Dicotyledons d) Pteridophytes

59) The unthickened area around a torus is called as
a) Closing membrane b) Margo c) Margo membrane d) Forminate membrane

60) Non-porous wood is usually found in
a) Dicots b) Monocots c) Cushion plants d) Gymnosperms

61) The slime bodies described earlier are now referred to as
a) Transcellular strands b) Mitochondria like bodies c) p-proteins
d) Callose bodies

62) In Summer season vascular cambium is
a) More active b) less active c) Normal d) Inactive

63) Leaves of many grasses are capable of folding and unfolding because they

a)Are very thin b)Are isobilateral c)Have specialized bulliform cells
d)Have parallel vascular bundles

64)When the stomata occur in both the leaf surfaces, such leaves are described as
a)Amphistomatic b)Hypostomatic c)Epistomatic d)Cyclostomatic

65)The unthickened cells of endodermis are
a)Cambial cells b)Passage cells c)complementary cellsd) lenticels

66)The hypodermis in monocotyledonous stem is
a)Parenchymatous b)Chlorenchymatous c)Collenchymatous
d)Sclerenchymatous

67)Root hair emerge from
a)Outermost cortex b)epiblema c)Pericycle d)Endodermis

68)In roots the xylem is
a)Endarch b)Exarch c)Mesarch d)Placed at different levels in different plants

69)Stomata are guarded by
a)Sclereids b)Subsidiary cells c)Palisade cells d)Epidermis

70)The pneumatophores have openings called
a)Stomata b)Hydathodes c)Lenticels d)All of these

71)In eustele,vascular bundle are
a)indefinite b)arranged in a ring c)scattered d)closed type

72)Undifferentiated ground tissue is met with in
a)sunflower stem b)maize stem c)pea stem d)cucurbita stem

73)Presence of pneumatophore roots and viviparity are special features of

a)hydrophytes b)halophytes c)xerophytes d)mesophytes

74)Raphides are crystals of

a)sodium chloride b)sodium carbonate c)calcium oxalate d)calcium carbonate

75)Periderm is composed of

a)cork cambium b)cork c)cork cambium ,secondary cortex
d)cork, cork cambium,
and secondary cortex

76)Match the following:

Column1

a)Endodermis
b)Bulliform cells
c)Cork
d)Cork cambium

a)A=s B=t C=p D=q
c)A=q B=p C=r D=s

Column2

p.Phellem
q.Phellogen
r. Periderm
s.Starch sheath
t.motor cells

b)A=p B=r C=t D=s
d)A=s B=p C=q D=r

77)Match the following:

Column-1

a)Atacto stele
b)Eustele
c)Amphivasal
d)Amphicribal

a)A=s B=p C=r D=t
c)A=s B=p C=r D=q

Column-2

p.Dicot stem
q.Hydrocentric
r.Leptocentric
s.Monocot stem
t.Monocot leaf

b)A=t B=s C=p D=q
d)A=q B=p C=t D=r

78)Match the following

Column -1

a)Heart wood
b)Sap wood
c)Hard wood

column -2

p.Vessels
q.duramen
r.non porous

d)Soft wood

s.alburnum

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a)A=s B=r C=p D=q

b)A=r B=q C=s D=p

c)A=q B=s C=p D=r

d)A=q B=s C=r D=p