BIOLOGY

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BIOLOGY (HINGLISH)

ANATOMY OF FLOWERING PLANTS

Anatomy Of Flowering Plants

1. A group of cells alike in form, function and origin is called

A. Organ

B. Oraganella

C. Tissue

D. None of these

Answer: C

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2. Shoot apical meristen is found on the tip of

A. Plumule

B. Radicle

C. Root

D. Apex

Answer: A

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3. Companion cells are closely accociated with

Or

Transport of food material in higher plants takes place through

A. Sieve elements

B. Vessel elements

C. Trichomes

D. Guard cells

Answer: A

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4. Tunica corpus theory was proposed by

A. Schmidt

B. Strasburger

C. Nageli

D. Hofmeister

Answer: A

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5. History theory was proposed by

A. Bailey

B. Haberlandt

C. Hanstein

D. Schmidt

Answer: C

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6. Parenchymatous cells filling the space between dermal and vascular tissue is

A. Ground tissue

B. Epidermal tissue

C. Pith

D. Vascular bundles

Answer: A

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7. Tracheids differ from other tracheary elements in

A. Lacking nucleus

B. Being lignified

C. Having casparian strips

D. Being imperforate

Answer: D

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8. Parenchymatous is

A. A fundamental tissue physiologically and morphologically

B. A foundamental tissue phylogenetically

C. Progenitor of all specialised tissues

D. All the above

Answer: D

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9. Which of the following statements is /are true

(A) Uneven thickening of cell wall is characteristic of sclerenchyma

(B) Periblem forms the cortex of the stem and the root

(C) Tracheids are the chief water transporting elements in gymnosperms

(D)Companion cell is devoid of nucleous at maturity

(E) The Commercial cork is obtained from Quercus suber

A. A and D only

B. B and E only

C. C and D only

D. B, C and E only

Answer: D

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10. Specialised parenchyme cells which store tannins, oils and crystals of calcium oxalate are called

A. Sclereids

B. Idioblasts

C. Stone cells

D. Conjunctive tissue

Answer: B

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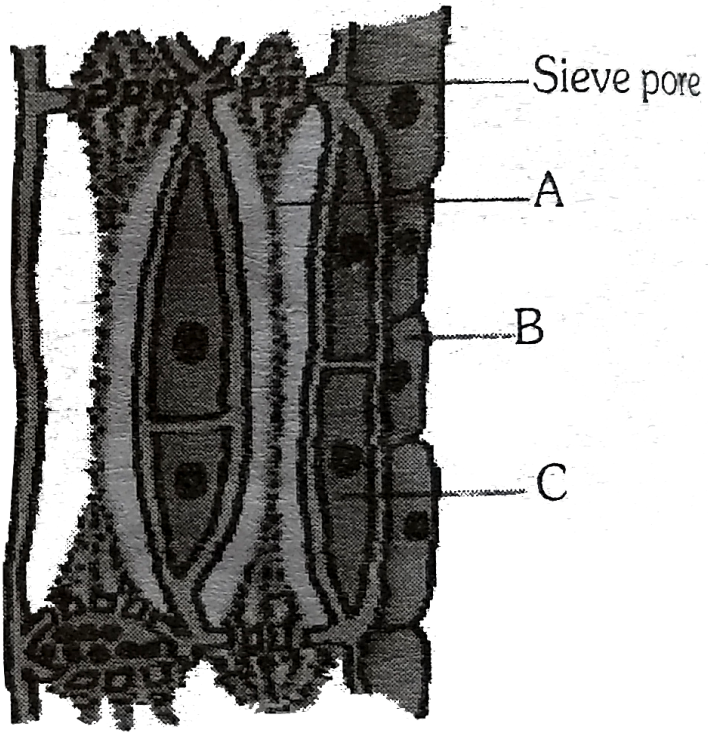
11. See the following figures and identify the type of simple tissue marked by alphabets



A. A-Sieve tube, B- Companion cell , C-Phloem parenchyma

B. A-Sieve tube, B- Phloem parenchyma, C- Phloem fibre

C. A-Vessel , B-Xylem parenchyma, C- Companion cell

D. A-Sieve tube, B-Phloem parenchyma, C-Comoanion cell

Answer: D

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12. A simple mechanical tissue devoid of lignin is

Or

Which one of the following is an effective tissue of growing orgass with sufficient elasticity

A. Parenchyma

B. Collenchyma

C. Sclerenchyma

D. Chlorenchyma

Answer: B

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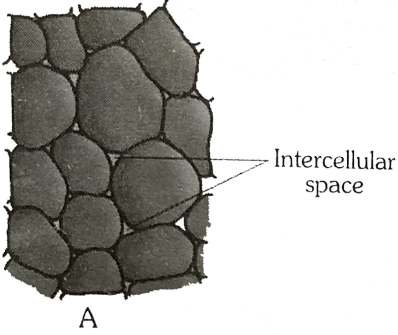
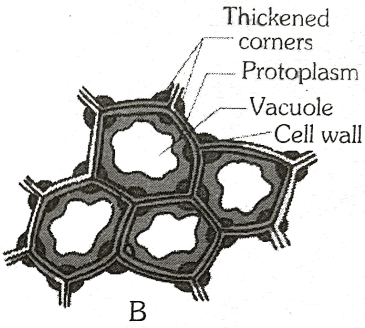
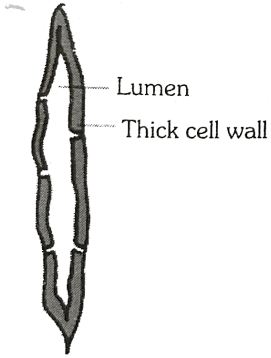
13. Seet the following figures and identify the type of simple tissue indicated by A, B, C and D



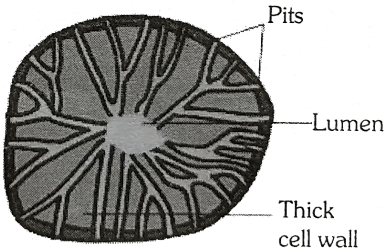
A



B



C



D

A. A-Collenchyma , B-Parenchyma, C-Sclereid (Sclerenchyma), D-Fibre (Sclerenchyma)

B. A-Parenchyma, B-Collenchyma, C-Sclereid (Sclerenchyma), D-Sclereid (Sclerenchyma)

C. A-Collenchyma, B-Parenchyma, C-Fibre (Sclerenchyma), D-Sclereid (Sclerenchyma)

D. A-Parenchyma, B- Collenchyma, C-Fibre (sclerenchyma), D- Sclereid (Sclerenchyma)

Answer: D

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14. A mature sieve tube differs from vessel in

A. Being nearly dead

B. Lacking cytoplasm

C. Lacking a functional nucleus

D. Absence of lignified walls

Answer: D

15. From evolutionary point of view, tracheids and sieve cells are more primitive than tracheae and sieve tubes respectively. The angiosperms have

A. Tracheae and sieve tubes

B. Tracheids, tracheae and sieve tubes

C. Tracheids, sieve cells and sieve tubes

D. Tracheids, tracheae and sieve cells

Answer: B

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16. In pteridophyta and gymnosperms which cells are present in place of companion cell

A. Sclereids

B. Albuminous cells

C. Idioblasts

D. None of these

Answer: B

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17. Wood is a common name of

A. Phloem

B. Secondary xylem

C. Cambium

D. Vascular bundles

Answer: B

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18. At maturity the sieve plates become impregnated with

A. Cellulose

B. Pectin

C. Suberin

D. Callose

Answer: D

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19. Consider the following statement and choose the correct option

The thread like cytoplasmic strands, running from one cell to other is known as plasmodesmata

(ii) Xylem and phloem constitute the vascular bundle of the stem

(iii)The first form xylem elements are described as

metaxylem

(iv) Radial vascular bundles are mainly found in the leaves

A. (i) is true , but (ii), (iii), and (iv) are wrong

B. (ii) is true, but (i) ,(iii) and (iv) are wrong

C. (iii) is true, but (i),(ii) and (iv) are wrong

D. (i) and (ii) are true, but (iii) and (iv) are wrong

Answer: D

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20. Which of the following statements is true ?

A. The collenchma occurs in layers below the epidrmis in monocotyledonous plants

B. Sclerenchyma cells are living and thin walled and their cell walls are made up of lignin

C. The companion cells are specialized sclerenchymatous cells

D. Phloem fibres are generally present in the cell of

Answer: B

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21. Intraxylary phloem may also be called

A. Internal phloem

B. Included phloem

C. Vestigeal phloem

D. None of these

Answer: A

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22. Interfascicular cambium develops from the cells of

A. Pericycle

B. Medullary rays

C. Xylem parenchyma

D. Endodermis

Answer: B

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23. Active division takes place in the cells of

A. Xylem

B. Phloem

C. Cambium

D. Sclerenchyma

Answer: C

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24. The only plant cells without nuclei among the following are

Or

The tissue which is living but does not posses nucleous in mature stage is

A. Cambium cells

B. cells of pericycle

C. Xylem parenchyma

D. Sieve tubes

Answer: D

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25. Cork tissue arises from

A. Periderm

B. Phellogen

C. Pelloderm

D. Phellem

Answer: B

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26. Collenchyma differs from sclerenchyma

A. Retaining protoplasm at maturity

B. Having thick walls

C. Having wide lumen

D. Being meristematic

Answer: A

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27. Walls of sclerenchyma are

A. Rigid

B. Lignified

C. Pactinised

D. Suberised

Answer: B

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28. Tunica corpus theory is related with

A. Root apex

B. Lateral meristems

C. Root cap

D. Shoot apex (apical meristem)

Answer: D

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29. The baloon like outgrowth of parenchyma in the lumen of a vessel is known as

A. Histogen

B. Tyloses

C. Phellogen

D. Tunica

Answer: B

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30. Vessels differ from tracheids

A. In being derived from single cell

B. In having vertical rows of cells with dissolved cross walls

C. In being living

D. They help in the conduction of water

Answer: A

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31. Vascular cambium are examples of

A. Lateral meristem

B. Apical meristem

C. Elements of xylem and phloem

D. Intercalary meristem

Answer: A

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32. Laticiferous vessels instead of laticiferous cells are found in

A. Ficus

B. Calotropis

C. Paoppy

D. Nerium

Answer: C

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33. The histogen layer present at the apex of the root tip is called

A. Dermatogen procambium

B. Procambium

C. Calyptrogen

D. Plerome

Answer: A

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34. Radial conduction of water takes place by

A. Vessels

B. Vessel and trachieds

C. Phloem

D. Ray parenchyma cells

Answer: D

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35. Sieve tubes are better suited for translocation, because

A. Possess broader lumen and perforated cross walls

B. Are broadered long

C. Possess bordered pits

D. Possess no end walls

Answer: A

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36. Collenchyma differs from parenchyma in having

A. Living protoplasm

B. Cellulose walls

C. Vacuoles

D. Pectin deposits at corners

Answer: D

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37. Cystoliths sometimes deposited in plant cells are crystals of (aggreagation of)

A. Calcium oxalate

B. Calcium carbonate

C. Magnesium carbonate

D. Glucosides

Answer: B

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38. Trachea , tracheids , wood fibres and parenchyma tissues are found in

A. Xylem

B. Phloem

C. Cambium

D. Cortex

Answer: A

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39. In the following pairs where fibres and parenchyma tissues are found in

A. Trachid and Collenchyma

B. Sclerenchyma and sieve tube

C. Sclerenchyma and trachea

D. Parenchyma and endodermis

Answer: C

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40. Tyloses are

A. Would healing secretions

B. Responsible for plugging the lumen of vessels

C. Special epidermal hairs coversing stomata in xerophytes

D. Callus secretion on sieve plates

Answer: B

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41. Plant tissues , which are acitvely growing have water content of

A. 40-50%

B. 65-75%

C. 20-40%

D. 85-95%

Answer: D

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42. A component of xylem is

A. Sieve tube

B. Medullary rays

C. Sclereids

D. Tracheid

Answer: D

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43. Which of the following supporting tissues have cells with unequally thickened walls

A. Fibres

B. Sclereids

C. Collenchyma

D. All the above

Answer: C

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

A. Presence of p-protein

B. Enucleate condition

C. Thick secondary walls

D. Pores on lateral walls

Answer: B

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45. Vessels are absent in

A. Teak wood

B. Shisham wood

C. Chir wood

D. Sal wood

Answer: C

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46. All the following statements regarding sieve tube elements are true expect

A. Their end walls have perforated sieve plates which become impregnated with lignin at maturity

B. They posses a peripheral cytoplasm as well as a large vacuole

C. Distinct proteinaceous inclusions, the p- proteins are seen evenly distributed throughout the lumen

D. Long, slender, tube-like structures arranged in longitudinal series

Answer: A

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47. Xylem fibre is

A. Bast fibre

B. Wood fibre

C. Heart wood

D. Libriform fibre

Answer: B

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48. The casparian strips of root endoderm contain a mixture of

A. Cellulose and cutin

B. Cellulose and lignin

C. Lignin and suberin

D. Cellulose and suberin

Answer: C

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49. Parenchymatous cells are found in

A. Pulp of fruit

B. Seeds

C. Endocarp

D. Skin of fruit

Answer: A

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50. Meristematic cells have

A. Thick cell wall and large intercellular spaces

B. Thick cell wall and no intercellular space

C. Thin cell wall and large intercellular spaces

D. Thin cell wall and no intercellular spaces

Answer: D

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51. The root apex is subterminal because it

A. Is covered by tunica cells

B. Is covered by root hairs

C. Has many corpus cells

D. Is covered by root cap

Answer: D

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52. Root cap in dicots is formed from

A. Protoderm

B. Ground meristem

C. Calyptrogen

D. Procambium

Answer: A

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53. One of the characteristic of sieve tube is

A. It is a part of phloem

B. Function is transport of inorganic solutes

C. It is dead cell

D. Sieve plate is not present

Answer: A

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54. Interfasicular cambium is a

A. Primary meristematic tissue

B. Primordial meristem

C. Type of protoderm

D. Secondary meristematic tissue

Answer: D

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55. Which of the following is a complex tissue

A. Parenchyma

B. Collenchyma

C. Xylem

D. Schlerenchyma

Answer: C

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56. Safranine stains which elements of the tissue

A. Starch elements

B. Lignified elements

C. Protein elements

D. Hard bast

Answer: B

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57. Laticiferous vessels are found in

A. Xylem tissue

B. Phloem tissue

C. Cortex

D. None of these

Answer: C

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58. Term 'Leptome' is a synonym of

A. Companion cells Sieve elements

B. Sieved elements

C. Phloem fibres

D. Phloem fibres

Answer: B

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59. The calytrogen of the root apex forms

A. Rhizoids

B. Root nodule

C. Root hairs

D. Root cap

Answer: D

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60. Histogen theory is more applicable for

A. Root apex

B. Shoot apex

C. Meristematic tissue

D. None of these

Answer: C

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61. Meristematic tissue in vascular bundle is

A. Phellem

B. Procambium

C. Interfasicular cambium

D. Fasicular cambium

Answer: D

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62. In which of the following phloem parenchyma is absent

A. Maize

B. Sunflower

C. Guava

D. Banyan

Answer: A

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63. Meristematic tissue responsible for increase in girth of tree trunk is

A. Lateral meristem

B. Intercalary meristem

C. Primary meristem

D. Apical meristem

Answer: A

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64. Function of storage is performed by

A. Parenchyma

B. Sclerenchyma

C. Phloem

D. All the above

Answer: A

65. On the basis of origin , meristematic tissues can be classified under how many groups

A. 2

B. 3

C. 4

D. 5

Answer: B

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66. Which of the following are primary meristems

A. Pleurome

B. Protoderm

C. Intercalary meristem

D. All the above

Answer: D

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67. Collenchymatous tissue is found in

A. Climbing plants

B. Aquatic plants

C. Woody climbers

D. Herbaceous climbers

Answer: A

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68. Parenchymatous tissue is characterized by the

A. Presence of uniform thickening

B. Presence of thickenning in the corners

C. Presence of intercellular spaces

D. Presence of lignified walls

Answer: A

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69. The histogens are classified on the basis

A. Cells they contain

B. Cells they give rise to future tissue

C. Meristematic activity

D. Cell division

Answer: B

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70. Which of the following are simple tissues

A. Parenchyma, xylem and phloem

B. Parenchyma , Collenchyma and sclerenchyma

C. Parenchyma, xylem and collenchyma

D. Parenchyma, xylem and sclerenchyma

Answer: B

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71. Bordered pits ae found in

A. Phloem

B. Protoxylem

C. Metaxylem

D. Pith

Answer: C

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72. The plant tissues commonly found in fruit walls of nuts and pulp of some fruits like guava are termed as

Or

pear fruits are gritty due to the presence of

Or

Tissue composed of nin-parenchymatous cells and have isodiametric or irrengular shape is called

A. Fibres

B. Tracheids

C. Sclereids

D. Vessels

Answer: C

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73. promeristem gives rise to which meristem

A. Secondary

B. Lateral

C. Primary

D. Apical

Answer: C

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74. Starch sheath in another name of

A. Hypodermis

B. Epidermis

C. Casparian strip

D. None of these

Answer: D

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75. Sieve tubes have

A. Apical and oblique septa

B. Perforated and longitudinal septa

C. Perforated and oblique septa

D. Simple oblique wall

Answer: C

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76. Which one of the following statements pertaining to plant structure is correct

A. Cork have no stomata, but lenticels carry out transpiration

B. Passage cells help in transfer of food from cortex to phloem

C. Sieve tube elements possess cytoplasm but not nuclei

D. The shoot apical meristem has a quiescent centre

Answer: C

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77. Protoderm ' and 'procambium' terms were coined by

A. Haberlandt

B. Hanstein

C. Schmidt

D. Nageli

Answer: A

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78. Which of the following tissues consist of living cells

A. Vessels

B. Tracheids

C. Companion cell

D. Sclerenchyma

Answer: C

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79. Tyloses thickenings are seen in

A. Phloem cells

B. Ray parenchyma only

C. Collenchyma

D. Ray parenchyma and xylem cells

Answer: D

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80. The function of a vessel is

A. Phellogen

B. Promeristen

C. Calyptrogen

D. None of these

Answer: B

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81. The function of a vessel is

A. Conduction of food

B. Conduction of water and minerals

C. Conduction of hormones

D. All the above

Answer: B

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82. The outermost primary meristem gives rise to

A. Epidermis

B. Procambium

C. Ground meristem

D. All the above

Answer: A

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83. The long plants are capabel of standing arect due to presence of

A. Sclerenchyma

B. Collenchyma

C. Parenchyma

D. Prosenchyma

Answer: A

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84. Epiblema in roots is derived from

A. Protoderm

B. Procambium

C. Ground meristem

D. Calyptrogen

Answer: A

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

A. Stem and root

B. All parts

C. Shoot tips and root tips

D. Flowers, fruits and leaves

Answer: B

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86. Tunica differs from corpus in

A. Position

B. Rate of growth

C. Plane of division

D. Region of activity

Answer: C

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87. Histogen theory states that epidermis is derived from the

A. Periblem

B. Cambium

C. Cortex

D. Dermatogen

Answer: D

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88. What is meristems

A. Diving cells

B. Non dividing cells

C. Permanent cells

D. Complex tissues

Answer: A

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89. Bordered pits ae found in

A. Gymnosperms

B. Bryophytes

C. Monocots

D. Hydrilla

Answer: A

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90. The tip of the root apical meristem is proceeded by root pocket in

A. Brassica

B. Eichhornia

C. Petunia

D. Wheat

Answer: B

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91. Which one of the following pairs is an example for lateral meristem

A. Procambium and phelloderm

B. Interfascicular cambium and phellem

C. Phellogen and phelloderm

D. Phellogen and fascicular cambium

Answer: D

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92. Match the following in column I with column II and choose the correct combination

	Column I		Column II
$A.$	Xylem vessels	1	Store food materials
$B.$	Xylem trachieds	2	Obliterated lumen
$C.$	Xylem fibre	3	Perforate plates
$D.$	Xylem parenchyma	4	Chisel-like ends

A. A-4, B-3, C-2, D-1

B. A-3, B-2, C-1, D-4

C. A-2, B-1, C-4, D-3

D. A-3, B-4, C-2, D-1

Answer: D

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93. Bamboo and grasses elongate by the activity of ---------

A. Secondary maristem

B. Lateral meristem

C. Apical meristem

D. Intercalary meristem

Answer: D

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94. Which is present in vascular bundles of gymnosperms

A. Tracheids Vessels

B. Vessels

C. Companion cells

D. All the above

Answer: A

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95. Root cap is absent in

A. Lithophytes

B. Hydrophytes

C. Xerophytes

D. Mesophytes

Answer: B

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

A. parenchyma

B. Lateral meristem

C. Apical meristem

D. Intercalary meristem

Answer: C

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97. Vessels are founds in

A. All pteridophyta

B. All angiosperms

C. Some gymnosperm

D. Both(b) and (c)

Answer: D

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98. The meristem of root is

A. Apical

B. Sub apical

C. Intercalary

D. Lateral

Answer: B

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99. Which one of the following is not a lateral meristem

A. Intercalary meristem

B. Intrafascicular cambium

C. Interfascicular cambium

D. Phellogen

Answer: A

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100. Lignin is the main constituent of

A. Woody tissues

B. Growing tissues

C. Phloem fibres

D. Cortex

Answer: A

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101. Which of the following is absent in phloem of Pinus

A. Phloem parenchyma

B. Sieve cells

C. Companion cells

D. None of these

Answer: C

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102. The plant which reproduces by apical meristem is

A. Gymnosperms

B. Pteridophyte

C. Angiosperm

D. Algae

Answer: B

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103. P- protein is found in

A. Collenchyma

B. Parenchyma

C. Xylem

D. Sieve tube

Answer: D

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104. Function of companion cells is

A. Loading of sucrose into sieve elements by passive transport

B. Loading of sucrose into sieve elements

C. Providing energy to sieve elements for active transport

D. Providing water to phloem

Answer: B

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105. Companion cells are part of angiospermic

A. Xylem

B. Phloem

C. Pith

D. Collenchyma

Answer: B

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106. Which of the following cell is totipotent

A. Meristem

B. Sieve tube

C. Collenchyma

D. Xylem vessel

Answer: A

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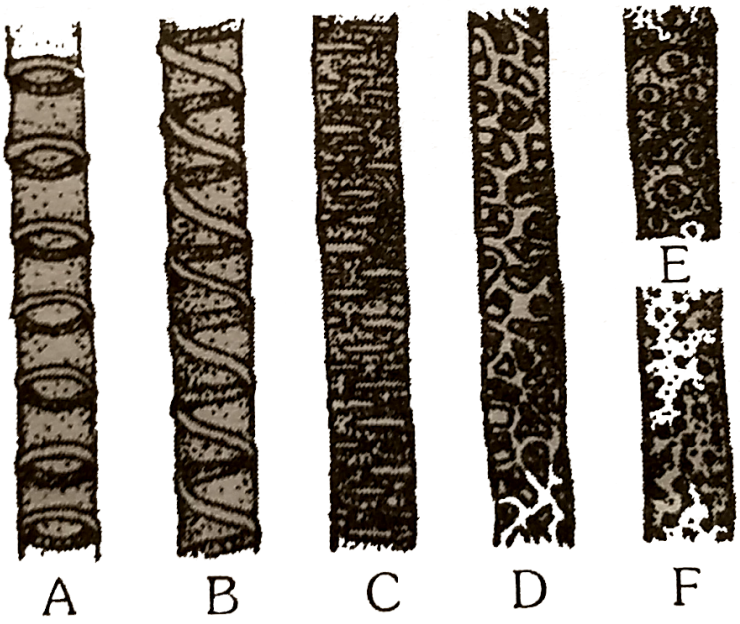
107. The following diagrams show the types of secondary thickenings in the xylem vessels. Identify the types labelled from A to F. Choose the correct option from

those given



A. A=spiral, B=annular, C=reticulate, D=scalariform, E=potted with border, F=pitted simple

B. A=annular, B=spiral, C=scalariform, C=reticulate, E=pitted with border, F=pitted simple

C. A=annular, B=spiral, C=scalariform, D=reticulate, E=pitted simple, F=pitted with border

D. A=spiral, B=annular, C=scalariform, D=reticulate, E=pitted with border, F=pitted simple

Answer: B

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108. The xylem fibres are classified into

A. Protoxylem and metaxylem

B. primary and secondary fibres

C. Fibre tracheids and fibres

D. Long and short fibres

Answer: C

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109. The trees have in them a large amount of

A. Starch

B. Lignocellulose

C. Cellulose

D. Chitin

Answer: C

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110. Meristems are found in

A. Cycas stem

B. Fern leaf

C. Pollens of pinus

D. Fern rhizome

Answer: A

111. Rod shaped elongated sclereids found in the seed coats of pulses are known as

A. Astrosclereids

B. Macrosclereids

C. Trichosclereids

D. Branchysclereids

Answer: B

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112. The process by which plants becomes woody is

A. Impregnation

B. Lignification

C. Fossilization

D. Calcification

Answer: B

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113. Casparian strips are present in the _____ of the root

A. Epiblema

B. Cortex

C. pericycle

D. Endodermis

Answer: D

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114. Promeristem is found in

A. Embryo

B. Root apex

C. Shoot apex

D. Intercalary region

Answer: A

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115. Meristematic tissues include

A. Leaf tips, cork cambium and vascular cambium

B. Stem and root apices, cork cambium and mature fruits

C. Stem and root apices, vascular cambium and cork cambium

D. Mature fruits and leaf tips

Answer: C

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116. The complex tissues include

A. Scleroids

B. Sclerenchyma

C. Secretory tissues

D. Collenchyma

Answer: C

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117. Which of the following elements has its end walls perforated

A. Tracheid

B. Vessel

C. Fiber

D. Scleried

Answer: B

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118. Epidermis in stem is produced from

A. Protoderm

B. Procambium

C. Ground meristem

D. Calyptrogen

Answer: A

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119. The tissue which perpetuates itself by active cell division is

A. Premanent tissue

B. Ground issue

C. Meristematic tissue

D. Vascular tissue

Answer: C

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120. Vascular cambium of the root is an example of

A. Apical meristem

B. Intercalary meristem

C. Secondary meristem

D. Root apical meristem

Answer: C

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121. Intercalary meristems are present in the

A. Nodal region

B. Internodal region

C. Bryophytes

D. Nodal region close to base of plant

Answer: A

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122. Intercalary meristem is seen in

A. Paddy

B. Ficus

C. Cabbage

D. Cucurbita

Answer: A

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123. Intercalary meristem results in

A. Secondary growth

B. Primary growth

C. Apical growth

D. Secondary thickening

Answer: B

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124. Chlorenchyma cells are chlorophyll containing

A. Sclerenchyma cells

B. Epidermis

C. Parenchyma

D. Phloem

Answer: C

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125. The loosely arranged nonchloropphyllous parenchyma cells present in lenticels are called

A. Complementary cells

B. Passage cells

C. Water stomata

D. Albuminous cells

Answer: A

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126. From which of the following tissue the protoderm is derived

A. Procambium

B. Cambium

C. Promeristem

D. All the above

Answer: C

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127. In a longitudinal section of a root, starting from the tip upward, the four zones occur in the following order

A. Cell division , cell enlargement , cell maturation, root cap

B. Cell division, cell maturation, cell enlargement, root cap

C. Root cap, cell division, cell enlargement, cell maturation

D. Root cap, cell division cell maturation, cell enlargement

Answer: C

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

A. Ground tissue

B. Callus deposition

C. Secondary meristem

D. Permanent tissue

Answer: B

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129. Which of the following statement is true about parenchymatous cells

A. Presence of thickening at corner

B. Presence of uniform thickening

C. Presence of intercellular spaces

D. Presence of lignified walls

Answer: C

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130. Lateral meristem is responsible for

A. Growth in length

B. Growth in parenchyma

C. Growth in thickness

D. Growth in cortex

Answer: C

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131. The commercial jute fibres are obtained from

A. Interxylary fibres

B. Xylem fibers

C. Phloem fibres

D. None of these

Answer: C

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132. Root cap is not found in

A. Hollyhock

B. Pistia

C. Sunflower

D. China rose

Answer: B

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133. Lignin is the important constituent in the cell wall of

A. Phloem

B. Parenchyma

C. Xylem

D. Cambium

Answer: C

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134. Which of the following is absent in the primary and secondary structure fo stem of Pinus

A. Sieve tubes

B. Mucilage duct

C. Companion cells

D. Phloem parenchyma

Answer: C

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135. Xylem position in secondary xylem is

A. Exarch

B. Endarch

C. Mesarch

D. None of these

Answer: D

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136. Dead cells of root are supplied by

A. Calyptrogen

B. Protoderm

C. Phallogen

D. Dermatogen

Answer: A

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137. Quiescent centre is found in

A. Stem tip

B. Root tip

C. Leaf tip

D. None of these

Answer: B

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138. The fibres associated with phloem are known as

A. Wood fibre

B. Surface fibre

C. Bast fibre

D. Hard fibre

Answer: C

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139. The cell wall of xylem cells is rich in

A. Lipid

B. Protein

C. Lignin

D. Starch

Answer: C

Watch Video Solution

140. Porous wood contains mainly

A. Fibres

B. Vessels

C. Tracheids

D. Solid secretions

Answer: B

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141. Conducting part of phloem according to Haberlandt (1914) is

A. Hadrome

B. Leptome

C. Sterom

D. Bark

Answer: B

Watch Video Solution

142. The difference in phloem of gymnosperms and angiosperms is due to

A. Parenchyma

B. Sieve cell

C. Companion

D. cell

Answer: C

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143. Starch is mainly manufacture by

A. Palisade parenchyma

B. Spongy parenchyma

C. Guard cells

D. Vascular bundle

Answer: A

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144. Fibres are obtained from

A. Xylem, phloem and sclerenchyma

B. Xylem, phloem , sclerenchyma and epidermis

C. xylem, parenchyma, epidermis

D. Xylem, parenchyma, endodermis

Answer: B

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145. Aerenchyma is formed in the tissue of

A. Sclerenchyma

B. Parenchyma

C. Phloem

D. None of these

Answer: B

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146. The chief water conducting elements of xylem in gymnosperms are

A. Tracheids

B. Vessels

C. Fibres

D. Tansfusion tissue

Answer: A

Watch Video Solution

147. Which tissue makes up the embryo of a seed

A. Meristematic tissue

B. Perenchyma

C. Collenchyma

D. Sclerenchyma

Answer: A

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148. The meristem which develops into a primary vascular tissue is

Or

Portion of apical meristem that gives rise to xylem tissue is called

A. Protonema

B. Promeristem

C. Ground meristem

D. Procambium

Answer: D

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149. Tracheids differs from vassels in having

A. Thick wall

B. Bordered pits

C. Discontinuous intercalary wall

D. Spiral thickening

Answer: B

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150. Hard lignified thick walled long and pointed cells a plant are

A. Parenchyma

B. Sclerenchyma

C. Collenchyma

D. Sclereids

Answer: B

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151. Which tissue is derived from tunica

A. Epidermis

B. Endodermis

C. pericycle

D. Vascular tissue

Answer: A

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152. which of the following plants grow by a single "apical cell"

A. Monocots

B. Dicots

C. Gymnosperms

D. Bryophytes

Answer: D

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153. Which structure is not found in the leaves of a bean plant

A. Guard cell

B. Chloroplast

C. Phloem

D. Lenticel

Answer: D

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154. Histogens are component of or The histogens are differentiated in

A. Apical meristem

B. Intercalary meristem

C. Lateral meristem

D. Secondary meristem

Answer: A

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155. How many histogens are present at the apex of root

A. 1

B. 2

C. 3

D. 4

Answer: C

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156. The vascular cambium normally gives rise to

A. Phelloderm

B. Primary phloem

C. Secondary xylem

D. Periderm

Answer: C

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157. Star shaped stele devoid of pith termed as

A. Actinostele

B. Solenostele

C. Dictyostele

D. Plectostele

Answer: A

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158. A stele with a central core of xylem surrounded by phloem is called or Actinostele is a modification of

Or

Pith is absent in

A. Protostele

B. Siphonostele

C. Solenostele

D. Dictyostele

Answer: A

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159. The arrangement of xylem in stem is

A. Endarch

B. Exarch

C. Mesarch

D. Both(a) and (b)

Answer: A

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160. Reduction in vascular tissue mechanical tissue and cuticle is characteristic of

A. Xerophytes

B. Mesophytes

C. Epiphyttes

D. Hydrophytes

Answer: D

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161. The length of different internodes in a culm of sugarcane is variable because

A. Size of leaf lamina at the node below each internode

B. Intercalary meristem

C. Shoot apical meristem

D. Position of axillary buds

Answer: B

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162. Vascular bundles in which phloem is found on both sides of xylem are called (In which of the following phloem

occurs in two patches

A. Collateral

B. Bicollateral

C. Radial

D. Amphicribral

Answer: B

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163. Amphivasal or leptocentric vascular bundles are found in

Or

An example of monocots showing secondary growth in stems is

A. Cycas and Dryopteris

B. Dracaena and Yucca

C. Helianthus and Cucurbita

D. Maize and wheat

Answer: B

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164. A root hair is formed by

A. Epidermal cell

B. Endodermal cell

C. Cortical cell

D. Pericycle cell

Answer: A

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165. The layer of cells outside the phloem meant for giving rise to the root branches is called

A. Cambium

B. Carpus

C. Endodermis

D. Pericycle

Answer: D

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166. The root cap is not used in absorption of water due to

A. Presensce of root hairs

B. Absence of root hairs

C. Its presence in elongation zone

D. None of these

Answer: B

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167. In root , pericycle gives rise to

A. Branch root and cork cambium

B. Cortex and pith

C. Epidermis and vascular bundles

D. Xylem and phloem

Answer: A

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168. Vascular bundles in the stem of Cucurbita or Lagenaria are

A. Collateral

B. Bicollateral

C. Radial

D. Inverted

Answer: B

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169. Periblem gives rise to

A. Pericycle

B. Cortex

C. Medulla

D. Epidermis

Answer: B

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170. Cuticle is secreted by

A. Epidermis

B. Endodermis

C. Both (a) and (b)

D. Hypodermis

Answer: A

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171. Vascular bundles are derived from (originate from)

A. Dermatogen

B. Periderm

C. Endogenous tissue the procambial strand or plerome

D. Cortex

Answer: C

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172. The composition of stele is

A. Pith , Vascular bundle

B. Pericycle, pith

C. Endodermis, Pericycle

D. Endodermis, pericycle, pith

Answer: A

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173. Bulliform or motor cells are present in

A. Dicot stem

B. Upper epidermis of dicot leaves

C. Lower epidermis of monocot leaves

D. Upper epidermis of monocot leaves

Answer: D

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174. Ground tissue includes

A. All tissues internal to endodermis

B. All tissues external to endodermis

C. All tissues except epidermis and vascular bundles

D. Epidermis and cortex

Answer: C

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175. Radial vascular bundle can be seen in

A. Leaf

B. Dicot root

C. Stem

D. Flower

Answer: B

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176. Water stomata are found in

A. Plants inhabiting humid region

B. Plants inhabiting dry regions

C. All plants

D. Plants lacking normal stomata

Answer: A

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177. Raphides are found in

A. Citrus

B. Colocasia

C. Nerium

D. Mango

Answer: C

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178. Mesarch xylem is common in

A. Ferns

B. Bryophytes

C. Dicots

D. Monocots

Answer: A

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179. In plants like Nymphaea which is attached emerged hydrophyte, the stomata are present on

A. Adaxial (upper) surface of leaf

B. Abaxial (lower) surface of leaf

C. On both surface of leaf

D. None of these

Answer: A

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180. Multiple epidermis on dorsal and ventral side of the leaf is

A. Zea mays

B. Ficus benghalensis

C. Mangifera indica

D. Nerium oleander

Answer: D

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181. Amphiphloic (bicollateral) condition of stele means that

A. Phloem is surrounded by xylem

B. Phoem us on both sides of xylem

C. Phloem is internal to xylem

D. Phloem is external to xylem

Answer: B

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182. When formation of metaxylem is in a centripetal manner, the xylem is

A. Endarch

B. Exarch

C. Mesarch

D. Radial

Answer: B

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183. Druse is a crystal or deposit of

A. Calcuim oxalate

B. Calcium carbonate

C. Starch

D. Silica

Answer: A

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184. The most primitive type of stele is

A. Eustele

B. Solenostele

C. Protostele

D. Siphonostele

Answer: C

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185. Match the items in Column-I with Column-II and choose the correct option

	Column – 1		Column – 2
$A.$	Radial Vascular Bundle	1.	Cucurbita pepo
$B.$	Collateral Vascular Bundle	2.	Dracaena
$C.$	Bicollateral Vascular Bundle	3.	Roots of angiosperms
$D.$	Amphicribal Vascular Bundle	4.	Sunflower stem
$E.$	Amphivasal Vascular Bundle	5.	Fern

A. A-3, B-4, C-1, D-5, E-2

B. A-2,B-3, C-1, D-5, E-4

C. A-3, B-4, C-5, D-1, E-2

D. A-4, B-5, C-1, D-2, E-3

Answer: A

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186. Passage cells are found in

A. Dicot stem

B. Aereal root

C. Monocot root

D. Monocot stem

Answer: C

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187. Trabaculae is the transformation of

A. Pericycle

B. Endodermis

C. Xylem

D. Phloem

Answer: B

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188. A bicollateral vascular bundle has the following arrangement of tissues

A. Outer phloem-outer xylem-middle cambium-inner xylem-inner phloem

B. Outer-cambium-Outer phloem-middle xylem-inner phloem-inner cambium

C. Outer phloem-outer cambium - middle xylem-inner cambium-inner phloem

D. Outer xylem-outer cambium-middle phloem-inner cambium-inner xylem

Answer: C

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189. Amphivasal vascular bundle possess

A. Xylem around phloem

B. Phloem around xylem

C. Phloem on both sides of xylem

D. Phloem toword centre and xylem toward periphery

Answer: A

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190. A dicot plant in which scattered vascular bundles are present in stem is

A. Yucca

B. Pereromia

C. Dolichos

D. Helianthus

Answer: B

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191. Vascular tissue is well developed in

A. Hydrophytes

B. Mesophytes

C. Xerophytes

D. None of these

Answer: C

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192. Vascular bundle in monocotyledons are considered closed, when

A. Cambium present

B. Cambium absent

C. Pericycle absent

D. None of these

Answer: B

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193. In the leaf vascular bundles are found in the

A. Venis

B. Palisade tissue

C. Lower epidermis

D. Upper epidermis

Answer: A

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194. Protosteles are found in

A. Bryophyta

B. Gymnosperms

C. Pteridophyta

D. Angiosperms

Answer: C

Watch Video Solution

195. Which of the following have sunken stomata

A. Nerium

B. Mangifera

C. Hydrilla

D. Zea mays

Answer: A

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196. Some vascular bundles are described as open because these

A. Possess conjunctive tissue between xylem and phloem

B. Are not surrounded by pericycle

C. Are surrounded by pericycle but no endodermis

D. Are capabel of producing secondary xylem and phloem

Answer: D

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197. Vascular cambium in dicot root develops from

Or

In dicot root , initiation of lateral root and vascular cambium during secondary growth takes place from

A. Endodermis

B. Pericycle

C. Conjunctive parenchyma

D. Both (b) and (c)

Answer: D

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198. The large , empty and colourless cells present at intervals on the upper surface of grass leaf are called

A. Bulliform cells

B. Palisade parenchyma

C. Spongy parenchyma

D. Accessory cells

Answer: A

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199. Amphicribal or hadrocentric vascular bundles are present in the stem of

A. Selaginella

B. Dracaena

C. Cucurbita

D. Zea mays

Answer: A

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200. In free floating plant , the stomata are

A. Absent

B. Present on upper surface

C. Present on both the surface

D. Present on lower surface

Answer: B

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201. Pith cells are found in

A. Epidermis

B. Endodermis

C. Pericycle

D. Lenticels

Answer: B

Watch Video Solution

202. Dorsiventral leaf has

A. Stomata on both side

B. Stomata on lower surface

C. Stomata on upper surface

D. No stomata

Answer: B

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203. Root hairs are found

A. In the zone of maturation

B. Adventitious roots

C. On the root cap

D. Apical meristem

Answer: A

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204. Raphides are needle-like crystals of calcium oxalate which are specially found in

A. Pistia

B. Rose

C. Asparagus

D. Dahlia

Answer: A

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205. Which of the following do not have stomata

A. Xerophytes

B. Mesophytes

C. Hydrophytes

D. Submerged hydrophytes

Answer: D

Watch Video Solution

206. Passage cells are present in

A. Epidermis

B. Endodermis

C. Xylem

D. Lenticels and hydathodes

Answer: B

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207. When xylem and phloem are separated by a strip of cambium it is called

A. Collateral and open

B. Collateral and closed

C. Bicollatoral and open

D. Concentric and closed

Answer: A

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208. Cortex is the region found between

A. Endodemis and vascular bundle

B. Epidermis and stele

C. Pericycle and endodermis

D. Endodermis and pith

Answer: B

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209. Exarch and polyarch vascular bundles occur in

A. Monocot stem

B. Monocot root

C. Dicot stem

D. Dicot root

Answer: B

210. Bicollateral conjoint vascular bundles have

A. Xylem and phloem, which are arranged in an alternate manner on different radii

B. Xylem and phloem, which are situated at the same radius and it has two groups of phloem along the two sides of xylem (inside and outside)

C. Xylem and phloem in same radius but it has only one group phloem outside the xylem

D. Phloem surrounds the xylem tissues

Answer: B

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211. Velamen tissue in orchids is found in

A. Shoot

B. Root

C. Leaves

D. Flowers

Answer: B

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212. Casparian thickenings are found in the cells of

Or

In dicot roots, cells of which region show casparian strips

A. Pericycle of the root

B. Endodermis of the root

C. Pericycle of the stem

D. Endodermis of the stem

Answer: B

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213. In monocot leaf

A. Bulliform cells are absent from the epidermis

B. Veins form a network

C. Mesophyll is well differentiated into these parts

D. Mesophyll is not differentiated into palisade and spongy parenchyma

Answer: D

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214. Find out the wrong statement about angiosperm roots

A. Cuticle is absent in young stages

B. The apex is protected by root cap

C. Vascular bundles are collateral

D. Xylem is centripetal in growth in the young roots

Answer: C

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215. 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

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216. The correct situation of mesophyll in isobilateral grass leaf I shown by

A. Palisade towards adaxial surface

B. Palisade toward abaxial surface

C. Undifferentiated mesophyll

D. Palisade along both the surface

Answer: C

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217. Leaf mesophylls are composedof

A. Pallisade parenchyma

B. Spongy parenchyma

C. Both of them

D. None of these

Answer: C

Watch Video Solution

218. Vascular bundles are scattered in

A. Bryophytes

B. Dicot root

C. Dicot stem

D. Monocot stem

Answer: D

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219. Generally hypodermis in monocots is composed of

A. Parenchyma

B. Sclerenchyma

C. Collenchyma

D. Chlorenchyma

Answer: B

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220. Kranz anatomy is found in

A. Monocots

B. Dicots

C. Both (a) and (b)

D. None of these

Answer: C

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221. Which of the following is not a characteristic feature of the anatomy of dicotyledonous root

A. Radial vascular bundles

B. Secondary growth

C. Pith little or absent

D. Vascular bundles 15-20

Answer: D

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222. Origin of lateral root of secondary root is

A. Exogenous

B. Endogenous

C. Lysigenous

D. Schizogenous

Answer: B

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223. In a vertical section of a dorsiventral leaf, the protoxylem in its midrid bundle

A. Faces the dorsal epidermis of the leaf

B. Faces the ventral epidermis of the leaf

C. Is not distinct

D. Is surrounded by metaxylem

Answer: A

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

A. Maturing

B. Elongating

C. Widening

D. Differentiating

Answer: A

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225. In barley stem vascular bundles are

A. Open and scattered

B. Closed and scattered

C. Open and in a ring

D. Closed and radial

Answer: B

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

A. Absence of secondary xylem

B. Absence of secondary phloem

C. Presence of cortex

D. Position of protoxylem

Answer: D

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227. Palisade parenchyma is absent in leaves of

A. Sorghum

B. Mustard

C. Soybean

D. Gram

Answer: A

Watch Video Solution

228. Exarch xylem is found in

A. Root

B. Stem

C. Leaf

D. Rachis

Answer: A

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229. The vascular cambial ring of a dicot stem is

A. Primay in origin

B. Secondary in origin

C. Embryonic in origin

D. Tertiary in origin

Answer: D

230. Consider the following statement

(A) In a dicot root, the vascular bundles are collateral and endarch

(B) The inner most layer of cortex in a dicot root is endodermis

(C) In a dicot root, the phloem masses are separated from the xylem by parenchymatous cells that are known as the conjunctive tissue

Of these statement given above

A. A is true, but B and C are false

B. B is true, but A and C are false

C. A is false, but B and C are true

D. C is false, but A and C are true

Answer: C

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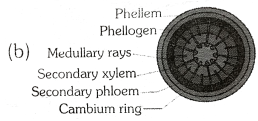
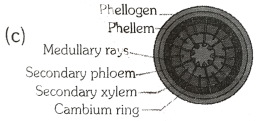
231. Which of the following figure of dicot stem is correctly labelled

A. 

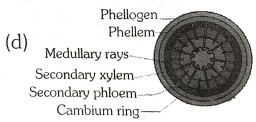
B.



C.



D.



Answer: B

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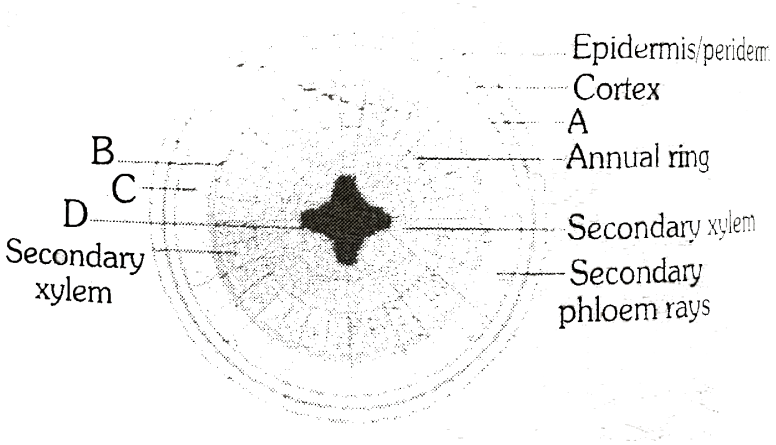
232. The following figure is old typical dicot root, Identify

A, B, C and D



A. A-Secondary phloem, B- Primary xylem, C-Primary phloem, , D-Vascular cambium

B. A-Primary phloem, B-Primary xylem, C- Secondary phloem , D-Vascular cambium

C. A- Secondary phloem , B-Vascular cambium, C-Primary phloem, D-Primary xylem

D. A-Primary phloem, B-Vascular cambium, C-Secondary phloem, D-Primary xylem

Answer: D

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233. Vascular bundles in dicot stem are

A. Conjoint and collateral

B. Conjoint and closed

C. Conjoint, collateral and open

D. Collateral and open

Answer: C

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234. Which of the following is correct sequence of layers in typical monocot root (from outer surface to inside)

A. Pericycle, cortex , endodermis, epiblema

B. Epiblema, endodermis, cortex, pericycle

C. Epiblema, cortex, endodermis, pericycle

D. Epiblema, pericycle, cortex, endodermis

Answer: C

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235. Monocot root differs from dicot root in

A. Presence of more than six xylem bundle

B. Well developed pith

C. Absence of secondary growth

D. All of these

Answer: D

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236. Pith is a central part of the ground tissue generally made up of

A. Parenchyma

B. Collenchyma

C. Chlorenchyma

D. Sclerenchyma

Answer: A

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237. In a dorsiventral leaf, location of palisade tissue and phloem is respectively on the _____surfaces.

A. Abaxial and abaxial

B. Adaxial and abaxial

C. Adaxial and adaxial

D. Abaxial and adaxial

Answer: B

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238. T.S. of stem of Cucurbita can be indentified from the T.S. of sunflower stem by the presence of

A. Bicollateral vascular bundles

B. Conjoint vascular bundles

C. Scattered vascular bundles

D. Cambium in the vascular bundles

Answer: A

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239. Which of the following is seen in a monocot root

A. Large pith

B. Vascular cambium

C. Endarch xylem

D. Medullary ray

Answer: A

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240. In monocot stem, following is absent

A. Endodermis

B. Hypodermis

C. Cortex

D. Both (a) and (b)

Answer: A

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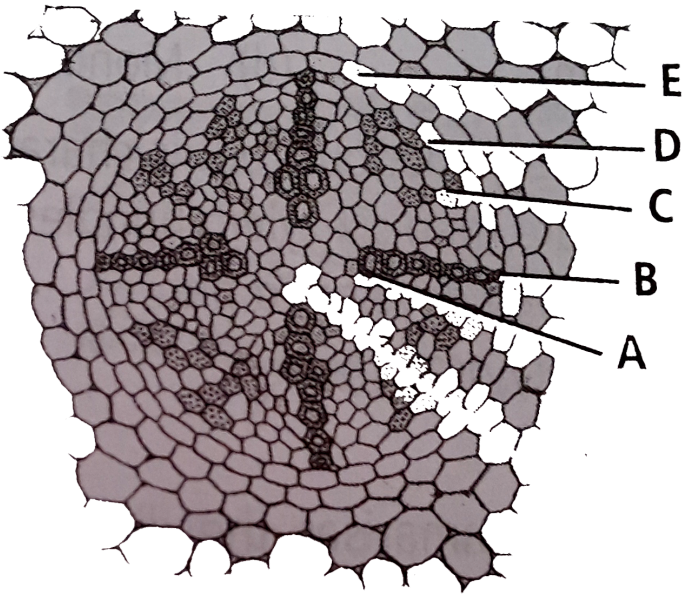

241.

A diagram of T.S. of dicot root is given, select the option which correctly labels A, B,C,D and E

A. $A = \text{Endodermis}$, $B = \text{Conjunctive tissue}$, $C = \text{Metaxylem}$, $D = \text{Protoxylem}$, $E = \text{Phloem}$, $D = \text{Metaxylem}$

B. $A = \text{Endodermis}$, $B = \text{Pith}$, $C = \text{Protoxylem}$, $D = \text{Metaxylem}$, $E = \text{Protoxylem}$, $F = \text{Conjuntive tissue}$

C. $A = \text{Pericycle}$
$B = \text{Conjuctive tissue}$ $C = \text{Metaxylem}$
$D = \text{Protosylem}$ $E = \text{Phloem}$

D. $A = \text{Endodermis}$
$B = \text{Conjunctive tissue}$
$C = \text{Protoxylem}$ $D = \text{Metaxylem}$
$E = \text{Phloem}$ $F = \text{Pith}$

Answer: D

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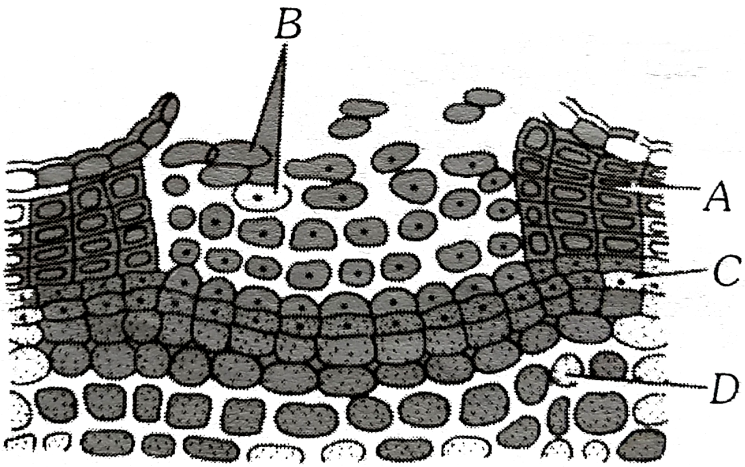
242. In the diagram of lenticel identify the parts as A, B, C, D



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

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

C.

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

Answer: A

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243. Centripetal xylem is the characteristic of

A. Roots

B. Stems

C. Leaf

D. Petiole

Answer: A

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244. In monocot roots which types of vascular bundles are found

A. Collateral , conjoint and closed

B. Radial V.B. with exarch xylem

C. Bicollateral, conjoint and closed

D. Radial V.B. with endarch xylem

Answer: B

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245. Conjoint, collateral and closed vascular bundle is found in

A. Monocot stem

B. Monocot root

C. Dicot stem

D. Dicot root

Answer: A

Watch Video Solution

246. Collenchyma tissue is present in

Or

Collenchymatous hypodermis is characteristics of

A. Dicot stem

B. Monocot stem

C. Dicot root

D. Flowers

Answer: A

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247. Largest number of chloroplast is found in

A. Palisade tissue

B. Spongy tissue

C. Transfusion tissue

D. Bundle sheath cells

Answer: A

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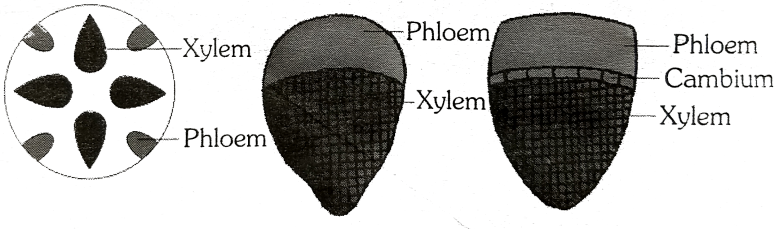
248. Which type of vascular bundles are found in A,B and C



A. Bicollateral,Concentric,Radial

B. Open collateral conjoint,Close collateral conjoint,Radial

C. Close collateral conjoint, Open collateral conjoint,Radial

D. Radial, Close collateral conjoint, Open collateral conjoint

Answer: D

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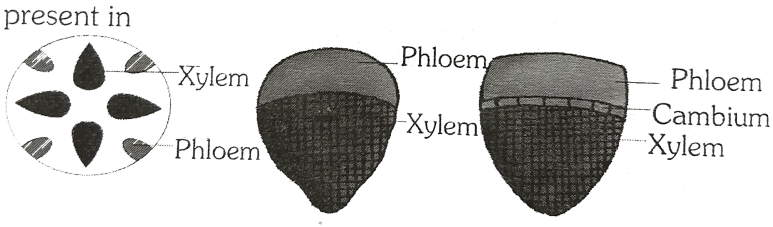
249. The following types of vascular bundles (A, B and C) are present in



A. Monocot stem and leaf , dicot root, monocot leaf respectively

B. Root, monocot stem and leaf, dicot stem respectively

C. Root, stem, leaf respectively

D. Stem, root leaf respectively

Answer: B

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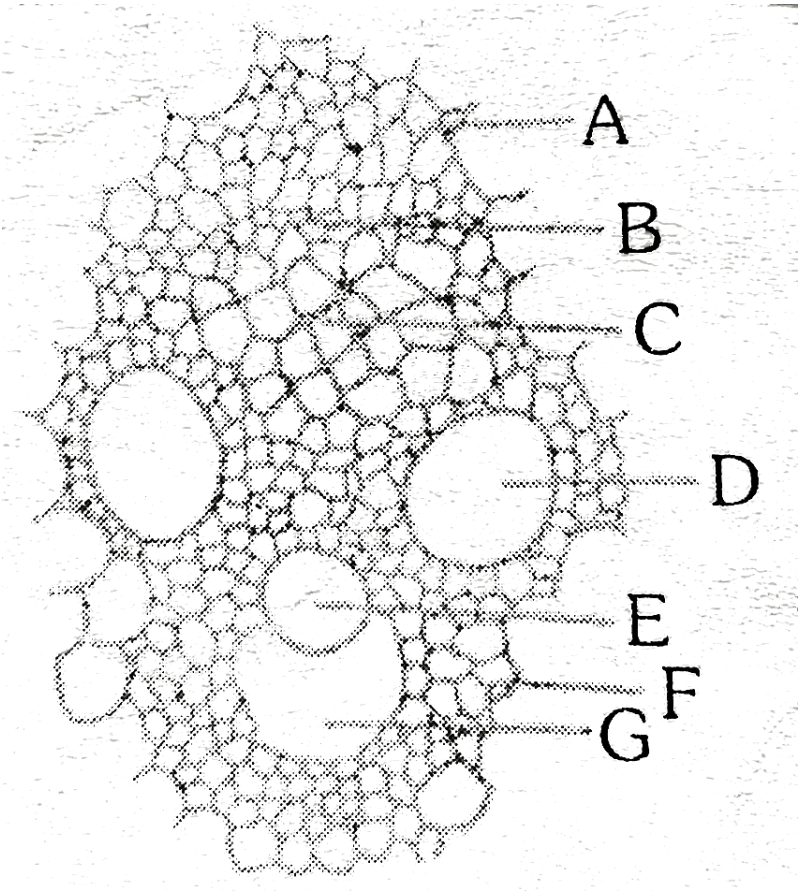
250. The following diagrams shows the corss-section of the vascular bundle of monocot stem given aside, different parts have been indicated by alphabets, choose the option in which these alphabets have been correctly

matched with the parts which they indicate



A. A=Bundle cap, B=Metaxylem, C=Metaphloem, D=Protoxylem, E=Protophloem, F=Lysigenous cavity, G=Xylem parenchyma

B. A=Bundle sheath, B=Primary phloem, C=Secondary phloem, D=Primary xylem, E=Secondary phloem, F=Xylem fibres, G=Hydathode

C. A=Bundle cap, B=Metaphloem , C=Protophloem, D=Protoxylem, E= Metaxylem, F=Lysigenous cavity, G=Xylem parenchyma

D. A=Bundle sheath, B=Broken phloem, C=Metaphloem, D=Metaxylem, E=Protoxylem, F=Xylem parenchyma, G=Lysigenous cavity

Answer: D

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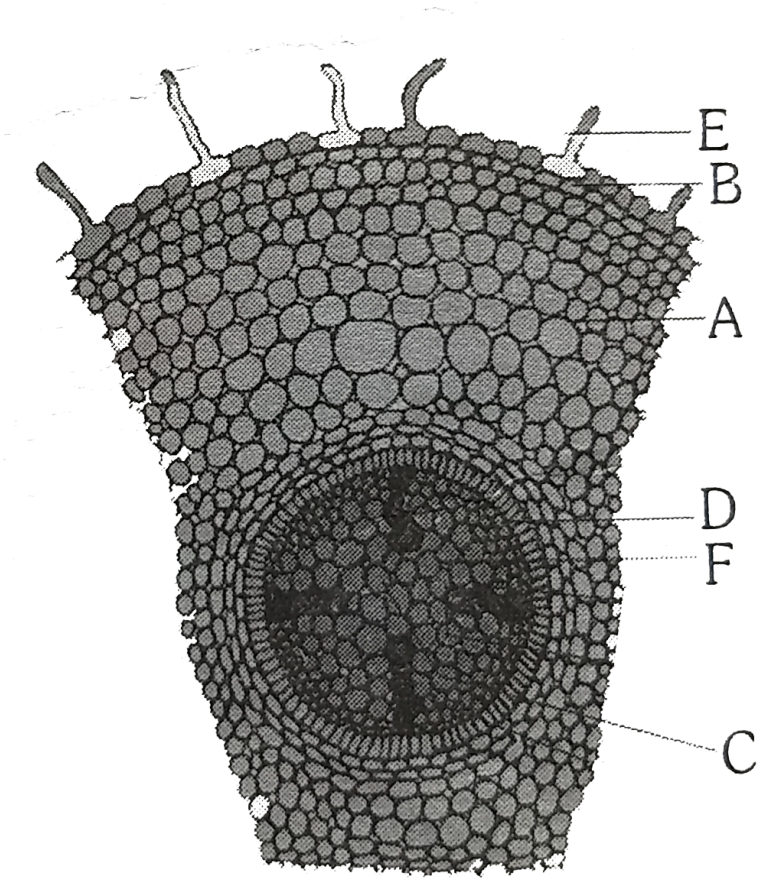
251. The following diagram shows the Ts of dicot root, certain parts have been indicated by letters, Select the option in which these latters have been correctly matched with the parts which they indicate



A. A=Root hair, B=Cortex, C=Epiblema, D=Pericycle, E=Endodermis, F=Pith, G=Passage cell, H=Phloem , I=Protoxylem, J=Metaxylem

B. A=Root hair , B=Epiblema, C=Cortex, D=Endodermis, E=Pericycle, F=Passage cell, G=Phloem, H=Pith, I=Protoxylem, J=Metaxylem

C. A=Root hair, B=Epiblema, C=Cortex, D=Endodermis, E=Passage cell, F=Pith, G=Pericycle, H=Metaxylem, I=Phloem, , J=Protoxylem

D. A=Root hair, B=Epiblema, C=Cortex, D=Endodermis, E=Passage cell, F=Pericycle, G=Ptih, H=Phloem, I=Metaxylem, J=Protoxylem

Answer: D

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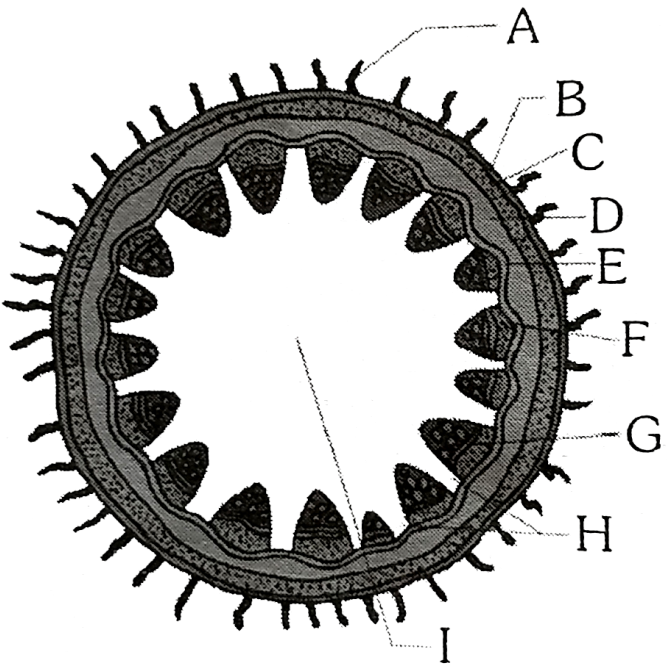
252. The following diagram shows the TS of dicot stem, certain parts have seen indicated by A,B,C,D,E,F,G,H and I. Select the right answer in which these alphabets have

been correctly matched with the parts which they indicate



A. A=Epidermal hairs, B=Epidermis, C=Parenchyma, D=Hypodermis (Collenchyma), E=Starch sheath, F=Vascular bundle, G=Bundle cap, H=Medulla or pith, I=Medullary rays

B. A=Epidermal hairs, B=Epidermis, C=Hypodermis (Collenchyma), D=Starch sheath, E=Parenchyma, F=Vascular bundle, G=Bundle cap, H=Medullary or pith, I=Medulla rays

C. A=Epidermal hairs, B=Epidermis, C=Hypodermis (Collenchyma), D=Parenchyma, E=Starch sheath, F=Bundle cap, G=Vascular bundle, H=Medullary rays, I=Medulla or pith

D. A=Epidermis , B=Epidermal hairs, C=Parenchyma, D=Starch sheath, E=Hypodermis (Collenchyma), F=Vascular bundle, G=Bundle cap, H=Medulla or pith, I=Medullary rays

Answer: C

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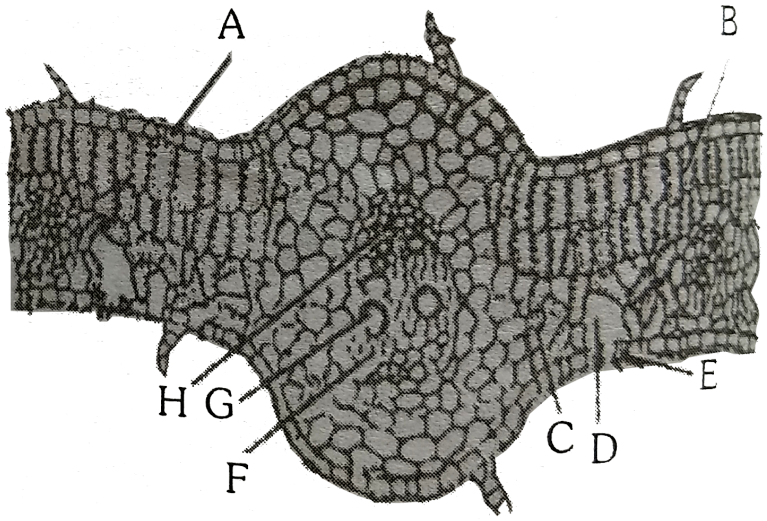
253. The following diagram shows the TS of dicot leaf passing through the midrib, some parts have been indicated by alphabets. Choose the answer in which A,B,C,D,E,F,G and H have been correctly matched with the parts which they indicate



A. A=Epidermis, B= Palisade Parenchyma, C=Spongy parenchyma, D=Stomata, E=Guard cells, F=Phloem, G=Metaxylem, H=Protoxylem

B. A=Epidermis, B=Palisade parenchyma, C=Spongy parenchyma, D=Stomata, E=Guard cells, F=Endodermis, G=Xylem, H= Phloem

C. A=Epidermis, B= Palisade parenchyma, C=Spongy parenchyma, D=Sub stomatal cavity, E=Guard cells, F=Phloem, G=Metaxylem, H= Protoxylem

D. A=Epidermis, B= Spongy parenchyma, C= Palisade parenchyma, D= Stomata, E= Guard cells, F= Phloem, G= Metaxylem, H= Protoxylem

Answer: C

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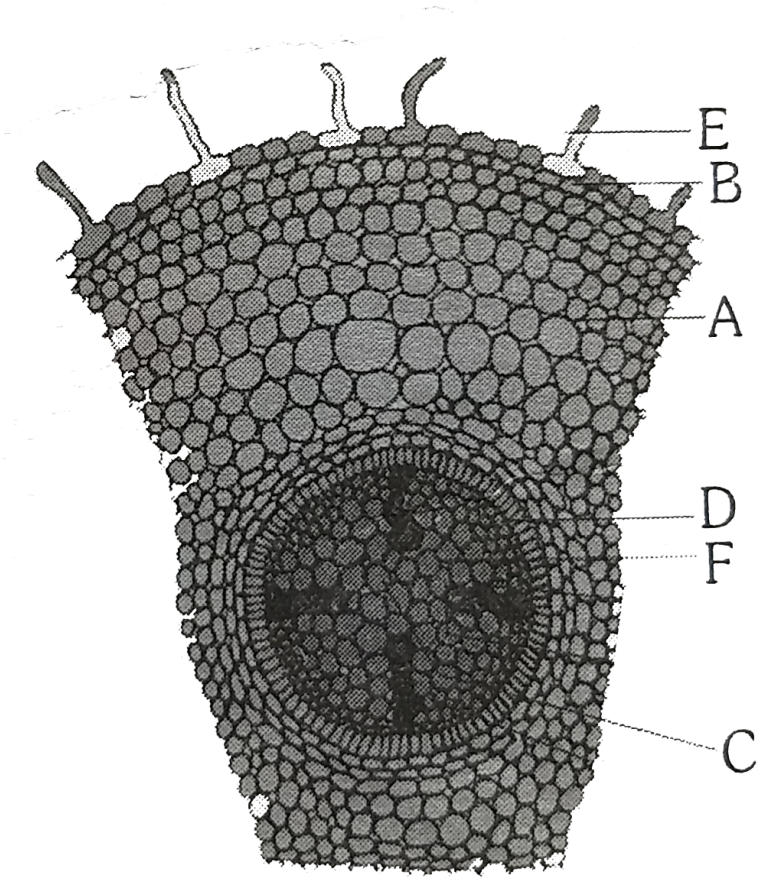
254. The following diagram shows the Ts of dicot root, certain parts have been indicated by letters, Select the option in which these latters have been correctly matched

with the parts which they indicate



A. A= Cortex, B= Epiblema, C= Pith, D=Endodermis, E= Root hair, F=Pericycle

B. A=Epiblema, B=Endodermis, C= Cortex, D= Root hair, E=Pith, F=Pericycle

C. A=Cortex, B=Pith, C=Epiblema, D=Endodermis, E=Root hair, F=Pericycle

D. A=Epiblema, B=Root hair, C=Cortex, D=Endodermis, E=Pith, F=pericycle

Answer: A

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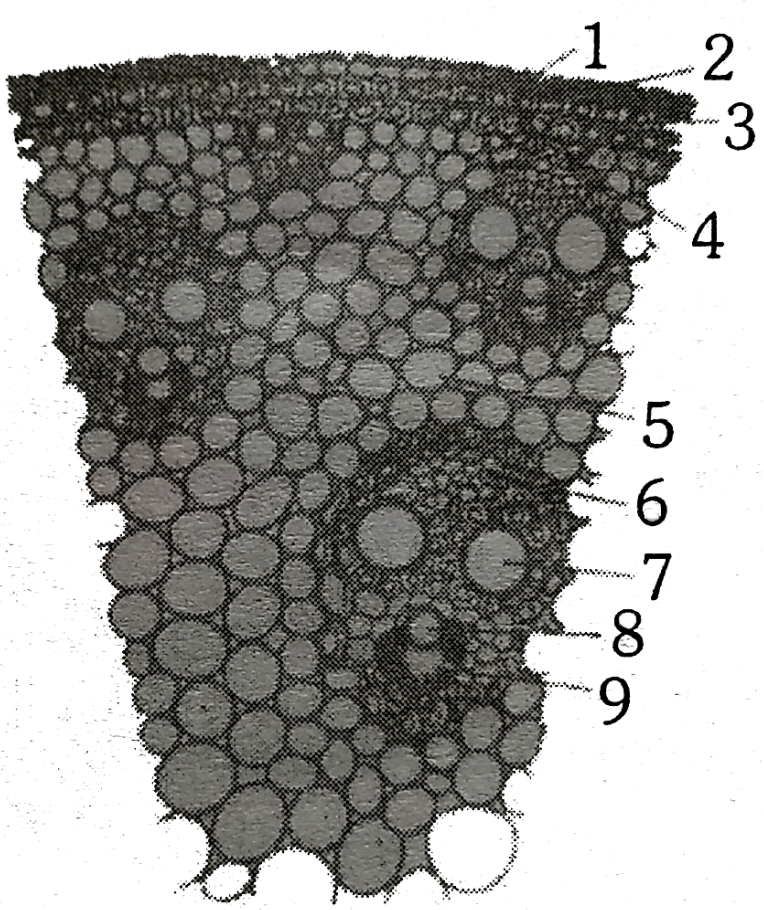
255. The given below diagram shows the T.S. of monocot stem, some parts have been indicated by numbers. Select the answer in which these numbers have been correctly

matched with the parts which they indicate



A. 1- Cuticle, 2- Epidermis, 3=Sclerenchymatous hypodermis, 4- Sclerenchymatous sheath, 5-

Parenchymatous sheath, 6- Protoxylem, 7-Metaxylem, 8-Phloem, 9-Water cavity

B. 1- Cuticle, 2-Epidermis, 3-Sclerenchymatous hypodermis, 4- Sclerenchymatous sheath, 5-Parenchymatous sheath, 6- Phloem, 7-Protoxylem, 8-Metaxylem, 9- Water cavity

C. 1- Cuticle, 2-Epidermis, 3-Sclerenchymatous sheath, 4- Sclerenchymatous hypodermis, 5-Parenchymatous sheath, 6-Phloem, 7-Metaxylem, 8-Protoxylem, 9-Water cavity

D. 1-Cuticle, 2- Epidermis, 3-Sclerenchymatous hypodermis, 4-Sclerenchymatous hypodermis, 4-

Sclerenchymatous sheath, 5- Parenchymatous sheath, 6-Phloem, 7-Metaxylem, 8-Protoxylem, 9-Water cavity

Answer: D

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256. In dicot stem, the secondary growth takes place by

A. Primary cambium

B. Secondary cambium

C. Development of cambium in stele region

D. Development of cambium in stele and in the cortical region

Answer: D

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257. Which one of the following is not correct

A. Early wood is characterized by large number of xylary elements

B. Early wood is characterized by vessels with wider cavities

C. Late wood is characterized by large number of xylary elements

D. Late wood is characterized by vessels with narrower cavities

Answer: C

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258. Conduction of sap in plants occurs through

A. Heartwood

B. Sapwood

C. Xylem

D. All the above

Answer: B

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259. "Sap wood" is otherwise called

A. Duramen

B. Alburnum

C. Pith

D. Medullary rays

Answer: B

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260. The function of cork cambium (phellogen) is to produce

A. Cork and secondary cortex

B. Secondary xylem and secondary phloem

C. Cork

D. Secondary cortex and phloem

Answer: A

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261. Vascular tissues in flowering plants develop from

A. Periblem

B. Dermatogen

C. Phellogen

D. Plerome

Answer: D

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262. During secondary growth in a dicot root, cork cambium is formed by the activity of

A. Epidermis

B. Hypodermis

C. Cortex

D. Pericycle

Answer: D

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263. Periderm is made up of

A. Phellem

B. Phellogen

C. Phelloderm

D. All the above

Answer: D

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264. If four radial vascular bundles are present, then the structure will be

A. Monocot stem

B. Monocot root

C. Dicot stem

D. Dicot root

Answer: D

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265. Secondary growth is absent in

A. Dicot stem

B. Gymnosperms

C. Monocot stem

D. Dicot root

Answer: C

Watch Video Solution

266. Complementary cells are found in

A. Pericycle

B. Endodermis

C. Lenticels

D. Pith

Answer: C

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267. Fascicular cambium found in dicot stem is a

A. Secondary meristem

B. Primary meristem

C. Intercalary meristem

D. Apical meristem

Answer: B

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

A. Phellogen

B. Intrafascicular cambium

C. Interfascicular cambium

D. Intercalary meristem

Answer: A

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269. heart wood differs from sapwood in

A. Being susceptible to pests and pathogens

B. Presence of rays and fibres

C. Absence of vessels and parenchyma

D. Having dead and non-conducting elements

Answer: D

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270. Youngest layer of secondary xylem in wood of dicot stem is located just

A. Outside the cambium

B. Inside the cambium

C. Outside pith

D. Inside the cortex

Answer: B

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271. Annual rings are distinct in plants growing in

A. Tropical regions

B. Arctic region

C. Grasslands

D. Temperate region

Answer: D

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272. Read the different components from (A) to (D) in the list given below and tell he 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. (A),(B),(D),(C)

B. (D),(A),(C),(B)

C. (D),(C),(A),(B)

D. (C),(D),(B),(A)

Answer: B

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273. Growth rings are well marked in trees growing in

A. Shimla

B. Bombay

C. Madras

D. Calcutta

Answer: A

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274. As secondary growth proceeds, in a dicot stem, the thickness of

A. Sapwood increases

B. Heartwood increases

C. Both sapwood and heartwood increases

D. Both sapwood and heartwood remains the same

Answer: C

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275. External protective tissues of plants are (of dicot stem are)

A. Cork and pericycle

B. Cortex and epidermis

C. Pericycle and cortex

D. Epidermis and cork

Answer: D

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276. Cork cambium is a

A. Secondary meristem

B. Apical meristem

C. Intercalary meristem

D. Primary meristem

Answer: A

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277. The cambium which produces cork is known as

Or

The common bottle cork is a porduct of

Or

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

A. Phelloderm

B. Phellogen

C. Periblem

D. Periderm

Answer: B

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278. The cork cambium, cork and secondary cortex are collectively called

A. Phellem

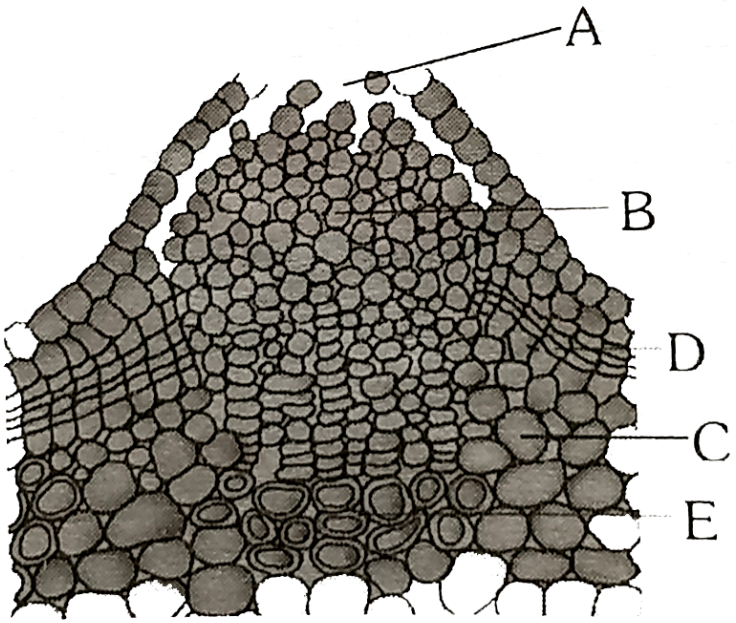
B. Phelloderm

C. Phellogen

D. Periderm

Answer: D

279. Identify the correct combination of labelling a lenticel



A. A- pore, B-complimentary cells, C- cork, D-cork cambium, E-secondary cortex

B. A-pore, B-cork, C-complimentary cells, D=cork cambium, E- secondary cortex

C. A-pore, B-cork cambium, C-secondary cortex, D-cork, E-complimentary cells

D. A- pore, B-secondary cortex, C-cork cambium, D-cork, E-complimentary cells

Answer: A

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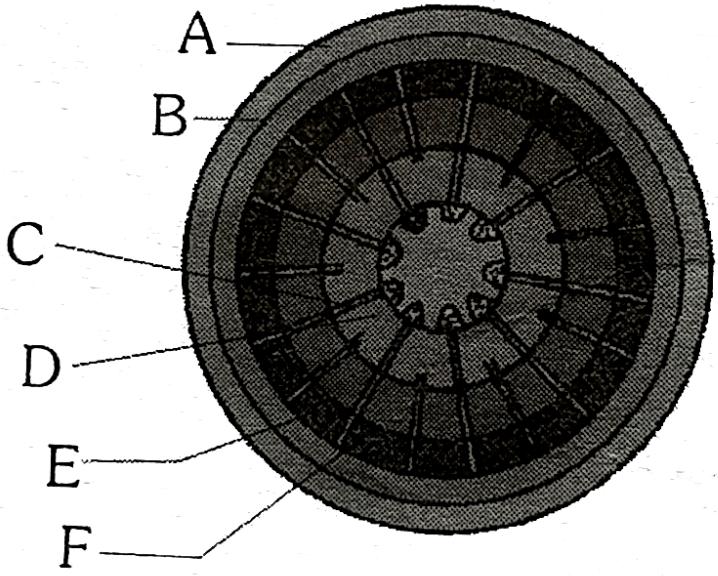
280. The following figure showing seondary growth in dicot stem. Identify A, B, C,D, E and F



A. A-Phellem, B-Phellogen, C-Medullary rays, D-Secondary xylem, E-Secondary phloem, F-Medullary rays

B. A-Phellogen , B-Phellem, C-Medulllary rays, D-Secondary xylem, E-Secondary phloem, F-Cambium ring

C. A-Phellem, B-Phellogen, C-Medullary rays, D-Secondary phloem, E-Secondary phloem, F-Cambium ring

D. A-Phellem, B-Phellogen, C-Medullary rays, D-Secondary phloem, E-Secondary phloem, f-Cambium fing

Answer: D

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281. In dicot stem secondary growth is due to the activity of

A. Apical meristem

B. Lateral meristem

C. Cork

D. Bark

Answer: B

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282. The cell wall is impermeable to water and deposition of suberin is also found in

A. Bast

B. Cork

C. Bark

D. Xylem

Answer: B

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283. Secondary growth is absent in

A. Hydorphytes

B. Mesophytes

C. Halophytes

D. Xerophytes

Answer: A

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284. Girth of a dicot stem is increased by

A. Xylem

B. Cambium

C. Phloem

D. Ground tissue

Answer: B

Watch Video Solution

285. Tyloses are found in

A. Secondary xylem

B. Secondary phloem

C. Callus tissue

D. Cork cells

Answer: A

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286. Fusiform initials form

A. Vascular rays

B. Tracheary elements

C. Ray parenchyma

D. Phloem parenchyma

Answer: B

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287. In the primary tissues of the stem, the cambium separating xylem and phloem is called

A. Procambium

B. Fascicular cambium

C. Cork cambium

D. Interfascicular cambium

Answer: B

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288. The trees growing in desert will

A. Show alternate rings of xylem and sclerenchyma

B. Have only conjunctive tissue and phloem formed by the activity of cambium

C. Show distinct annual rings

D. Not show distinct annual rings

Answer: D

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289. The bark of tree comprises

A. All the tissues outside the vascular cambium

B. All the tissues outside the cork cambium

C. Only the cork

D. The cork and secondary cortex

Answer: B

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290. Knots in stems are formed due to

A. Tumors formed due to bacterial infection of wounds

B. Outgrowth of seconday tissue over wounds

C. Injury caused by insects

D. None of the above

Answer: B

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291. The vascular cambium in dicots is

A. Lateral

B. Apical

C. Intercalary

D. Secondary

Answer: A

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292. Secondary cortex is also known as

A. Phellem

B. Phelloderm

C. Phellogen

D. Bark

Answer: B

Watch Video Solution

293. Annual growth rings are formed due to activity

A. Extrastelar cambium

B. Intrastelar cambium

C. Interstelar cambium

D. Both (b) and (c)

Answer: D

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294. As a tree grows older, which increases rapidly in thickness

A. Its heart wood

B. Its cortex

C. Its sap wood

D. Its phloem

Answer: A

Watch Video Solution

295. The axillary buds arise

A. Endogenously from the pericycle

B. Exogenously from the tissues of the main grawing point

C. Endogenously from the cambial tissues

D. Exogenously from the innermost cortex

Answer: D

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296. Lenticel develops through the activity of

A. Vascular cambium

B. Dermatogen

C. Phellogen

D. Intercalary meristem

Answer: C

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297. In a stratified cambium, the fusiform initials are

A. Long and overlap each other at the ends

B. Short and overlap each other at the ends

C. Short and arranged in horizontal tiers

D. Short or long and overlap each other at the ends

Answer: C

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298. Intrafascicular cambium is situated in

A. Outside the vascular bundles

B. In medullary rays

C. Inside the vascular bundles

D. In between the vascular bundles

Answer: C

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299. Lenticels are

A. Loose cells on leaves

B. Subsidiary cells of stomata

C. Cells for respiration in epiphytes

D. Some loose cells on bark meant for aeration

Answer: D

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300. In an annual ring, the light coloured part is known as

A. Early wood

B. Late wood

C. Heartwood

D. Sapwood

Answer: A

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301. In old dicot stems, a major part of the wood is filled up with tannins, resins, gums etc. This part of wood is called

A. Hard wood

B. Heart wood

C. Sap wood

D. Soft wood

Answer: B

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302. In summer, Cambium

A. Dies

B. Is more active

C. Is less active

D. Is not active

Answer: D

Watch Video Solution

303. What is /are true about heart wood

A. It does not help in water conduction

B. It is also called alurnum

C. It is dark in colour but very soft

D. It has tracheary element which are filled with tannin, resin, etc.

A. B, C and D

B. A and D

C. B and D

D. A, B and C

Answer: B

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304. Identify the correct statement

A. Because of marked climatic variations, plants growing near the sea shore do not produce annual rings

B. The age of the plant can be determined by its height

C. Healing of damaged tissue is because of the activity of sclerenchyma cells

D. Grafting is difficult in monocot plants as they have scattered vascular bundles

Answer: D

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

A. Sugarcane and sunflower

B. Teak and pine

C. Deodar and fem

D. Wheat and maiden hair fern

Answer: B

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306. Vascular cambium is a meristematic layer that cuts off

A. Primary xylem and primary phloem

B. Xylem vessels and xylem tracheids

C. Primary xylem and secondary xylem

D. Secondary xylem and secondary phloem

Answer: D

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307. The waxy substance associated with cell walls of cork cells is or cork cells are impervious to water becauce of the presence or what is deposited on cork cells

A. Cutin

B. Suberin

C. Lignin

D. Hemicellulose

Answer: B

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308. Which of the following statement is / are not true

A. Cork cambium is otherwise called phellogen

B. Cork is otherwises called phellem

C. Secondary cortex is otherwise called peirderm

D. Cork cambium, cork and secondary cortex are collectively called phelloderm

A. C and D only

B. A and B only

C. B and C only

D. B and D only

Answer: A

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309. The functional xylem of dicot tree is

A. Sap wood

B. Hard wood

C. Heart wood

D. Autumn wood

Answer: A

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310. Which will decay faster if exposed freely

A. Soft wood

B. Heart wood

C. Sap wood

D. Wood with lots of fibres

Answer: A

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311. In dicot stem, vascular bundles are

A. Numerous scattered

B. Arranged in a ring

C. Without cambium

D. Surrounded by bundle sheath

Answer: B

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312. The best method to determine the age of tree is

A. To find out the number of branches

B. To count the number of annual rings

C. To measure its diameter

D. To count the number of leaves

Answer: B

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313. Removal of ring wood of tissue outside the vascular cambium from the tree trunk kills it because

A. Water cannot move up

B. Food does not travel down and root become starved

C. Shoot become starved

D. Annual ring and not produced

Answer: B

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314. After the secondary growth the youngest layer of secondary

A. Just outside the vascular cambium

B. Just inside the vascular cambium

C. Just inside the primary phloem

D. Just outside the secondary xylem

Answer: A

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315. Cork is a derivative of

A. Cork cambium (phellogen) or extra fascicular cambium

B. Vascular cambium

C. Fascicular cambium

D. Interfascicular cambium

Answer: A

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316. Which of the following is known as wood

A. Primary xylem

B. Secondary xylem

C. Secondary phloem

D. Cambium

Answer: B

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317. Heart wood or duramen is

A. Outer region of secondary xylem

B. Inner region of secondary xylem

C. Outer region of secondary phloem

D. Inner region of secondary phloem

Answer: B

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318. One cannot age a tree by its rings if that tree is located in which of the following forests

A. Tropical deciduous

B. Tropical evergreen

C. Temperate deciduous

D. Temperate evergreen

Answer: B

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319. Commericial cork is obtained from

A. Mango

B. Oak (Quercus suber)

C. Ficus religiosa

D. Pinus

Answer: B

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320. The pores present in the wall of plant's stem i.e., called

Or

In a plant organ which is covered by periderm and in which the stomata are absent , some gaseous exchange still takes place through

A. Lenticels

B. Bark

C. Dalipore

D. All the above

Answer: A

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321. Lenticels are found in

A. Young dicot stem

B. Old dicot stem

C. Monocot root

D. Young root

Answer: B

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322. Secondary growth or increase in diameter is due to

A. Ground meristem

B. Procambium

C. Cork and phelloderm

D. Vascular cambium

Answer: D

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323. In the following how the sap wood is converted into heart wood

A. By degeneration of protoplast of living cells

B. Tylosis fomation

C. By deposition of resins, oil , gums

D. All of the above

Answer: D

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324. Indentify the wrong statement in context of heartwood

A. Organic compounds are deposited in it

B. It is highly durable

C. It conducts water and minerals efficiently

D. It comprises dead elements with highly lignified walls

Answer: C

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325. Which of the following is made up of dead cells

A. Xylem parenchyma

B. Collenchyma

C. Phellem

D. Phloem

Answer: C

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326. Secondary xylem and phloem in dicot stem are produced by

A. Apical meristems

B. Vascular cambium

C. Phellogen

D. Axillary meristems

Answer: B

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327. A transverse section of stem is stained first with safranin and then with fast green following the usual schedule of double staining for the preparation of a permanent slide. What would be the colour of the stained xylem and phloem

A. Red and green

B. Green and red

C. Orange and yellow

D. Purple and orange

Answer: A

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328. Match the following and choose the correct option from below

$A.$	Meristem	$i.$	Photosynthesis storage
$B.$	Parenchyma	$ii.$	Mechanical support
$C.$	Collenchyma	$iii.$	Actively dividing cells
$D.$	Sclerenchyma	$iv.$	Stomate
$E.$	Epidermal tissue	$v.$	Sclereids

A. A-I, B-iii, C-v, D-ii, E-iv

B. A-iii, B-I, C-ii, D-v, E-iv

C. A-ii, B-iv, C-v, D-I, E-iii

D. A-v, B-iv, C-iii, D-ii, E-i

Answer: B

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329. Match the following and choose the correct option from below

$A.$	Cuticle	$i.$	Guard cells
$B.$	Bullie form cells	$ii.$	single layer
$C.$	Stomate	$iii.$	Waxy layer
$D.$	Epidermis	$iv.$	Empty colourless cell

A. A-iii, B-iv, C-I, D-ii

B. A-I, B-ii,C-iii, D-iv

C. A-iii, B-ii, C-iv, D-i

D. A-iii,B-ii, C-I, D-iv

Answer: A

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330. Identify the tissue system from among the following

A. Parenchyma

B. Xylem

C. Epidermis

D. Phloem

Answer: A

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331. Cells of this tissue are living and show angular wall thickning. They also provide mechanical support. The tissue is

A. Xylem

B. Sclerenchyma

C. Collenchyma

D. Epidermis

Answer: C

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332. Epiblema of roots is equivalent to

A. Pericycle

B. Endodermis

C. Epidermis

D. Stele

Answer: C

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333. A conjoint and open vascular bundle will be observed in the transverse section of

A. Monocot root

B. Monocot stem

C. Dicot root

D. Dicot stem

Answer: D

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334. Interfascicular cambium and cork cambium are formed due to

A. Cell division

B. Cell differentiation

C. Cell dedifferentiation

D. Redifferentiation

Answer: A

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335. Phellogen and phellem respectively denote

A. Cork and cork cambium

B. Cork cambium and cork

C. Secondary cortex and cork

D. Cork and secondary cortex

Answer: B

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336. In which of the following pairs of parts of a flowering plant epidermis is absent

A. Root tip and shoot tip

B. Shoot bud and floral bud

C. Ovule and seed

D. Petiole and pedicel

Answer: A

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337. How many shoot apical meristems are likely to be present in a twig of a plant possessing, 4 branches and 26 leaves

A. 26

B. 1

C. 5

D. 30

Answer: C

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338. A piece of wood having no vessels (trachea) must be belong to

A. Teak

B. Mango

C. Pine

D. Palm

Answer: C

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339. A plant tissue, when stained , showed the presence of hemicellulose and pectin in cell wall of its cells. The tissue represents

A. Collenchyma

B. Sclerenchyma

C. Xylem

D. Meristem

Answer: A

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340. Fibres are likely to be absent in

A. Secondary phloem

B. Secondary Xylem

C. Primary phloem

D. Leaves

Answer: D

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341. When wepeel the skin of a potato tuber, we remove

A. Periderm

B. Epidermis

C. Cuticle

D. Sapwood

Answer: A

Watch Video Solution

342. A vesselless piceof stem possessing prominent sieve tubes would belong to

A. Pinus

B. Eucalyptus

C. Grass

D. Trochodendron

Answer: D

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343. Which one of the following cells types always divides by anticlinal cell division?

A. Fusiform initial cells

B. Root cap

C. protoderm

D. Phellogen

Answer: D

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344. What is the fate of primary xylem in a dicot root showing extensive secondary growth?

A. It is retained in the centre of the axis

B. It gets crushed

C. May or may not get crushed

D. It gets surrounded by primary phloem

Answer: A

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345. Match the following and choose the correct combination

$A.$	Endodermis	(1)	Companion cells
$B.$	Stomata	(2)	Lenticels
$C.$	Sieve tube	(3)	Palisade cells
$D.$	Periderm	(4)	Passage cells
E	Mesophyll	(5)	Accessory cells

A. A-4, B-5, C-2, D-1, E-3

B. A-5, B-3, C-1, D-2, E-4

C. A-4, B-5, C-1, D-2, E-3

D. A-2, B-5, C-3, D-4, E-1

Answer: C

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346. In woody dicotyledons, the arrangement of vessels is either duffuse porous or ring porous. Bases on these data, which one of the following statement is correct

A. Ring porous vessels are specialised and are used for conducting more water for a shorter period only, when tyloses occur early in the vessels

B. Although diffuse porous vessels are not so specialized as ring porous vessels, they conduct more water at all periods and through new xylem vessels added gradually during development

C. Diffuse porous vessels carry more water and also faster because of a greater number of small vessels having greater capillary force

D. Ring porous vessels conduct more water as they are formed early during development , when the need for water is great

Answer: D

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347. The quiescent centre in root meristem serves as a

A. Site for storage of food . Which is utilized during maturation

B. Reserve of growth hormones

C. Reserve for replenishment of damaged cells of the meristem

D. Region for absorption of water

Answer: C

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348. For a successful graft, the adhesion between stock and scion is a must. Which one of the following is the earliest event towards a good graft

A. Production of plasmodesmata in the cells at the interface of stock and scion

B. Coordinated differentiation of vascular tissue between the stock and scion

C. Regeneration of cortex and epidermis over the union of stock and scion

D. Production of callus tissue between the cells of stock and scion

Answer: D

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349. If there is more than one tunica layer in a stem apex, which among the following is most likely to happen

A. All the layers will develop into epidermal cellls

B. Only the outer layer will develop into epidermal cells

C. All the layers will develop into cortex

D. Inner layer will develop into cortex

Answer: B

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350. Water containing cavities in vascular bundles are found in

A. Sunflower

B. Maize

C. Cycas

D. Pinus

Answer: B

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351. A nail is driven into the trunk of a 30 year old tree at a point 1 meter above the soil level. The tree grown in height at the rate pf 0.5 meters a year After three years, the nail will be

A. 1 meter above the soil

B. 1.5 meter above the soil

C. 2 meters above the soil

D. 2.5 meters above the soil

Answer: A

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352. Grafting is not possible in monocots because they

A. Have scattered vascular bundles

B. Have parallel venation

C. Are herbaceous

D. Lack cambium

Answer: D

Watch Video Solution

353. Trees at sea do not have annual rings because

A. Soil is sandy

B. There is climatic variation

C. There is no marked climatic variation

D. There is enough moisture in the atmosphere

Answer: C

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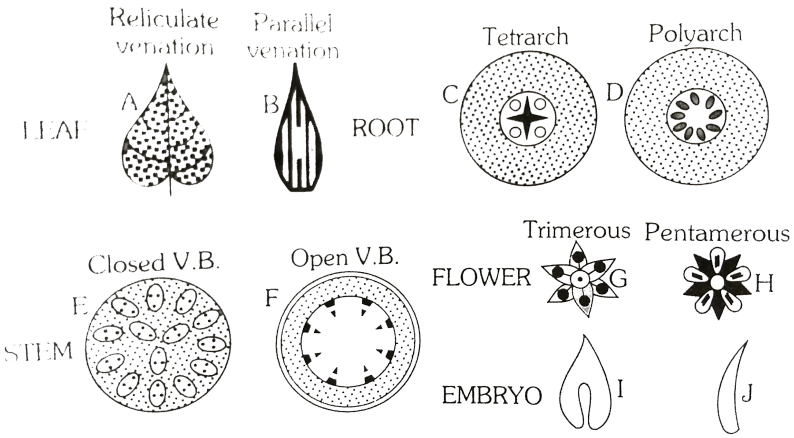
354. See the following figures and identify the characters of Dicot and Monocot respectively



A. B, C, F, H, I, and A, D, E, G, J

B. A, C, E, G, I, and B, D, F, H, J

C. A, D, F, H, I, and B, C, E, G, J

D. A, C, F, H, I, and B, D, E, G, J

Answer: D

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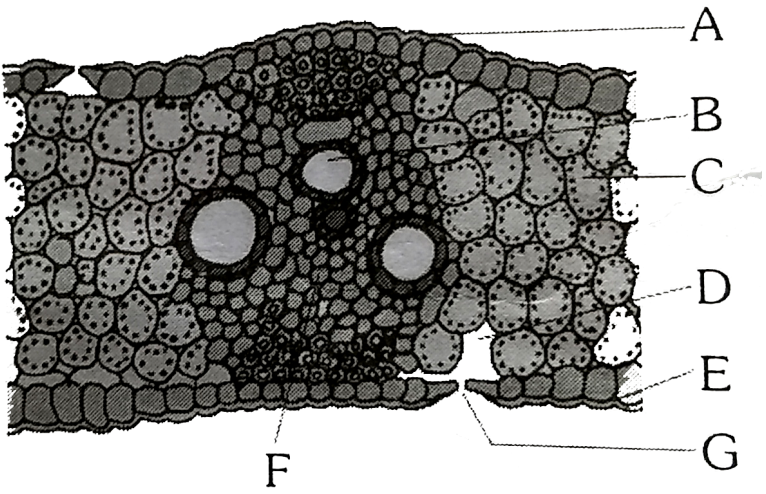
355. The following diagram shows the T.S. of monocot leaf, certain parts have been indicated by alphabets. Select the option in which A, B, C, D, E, F and G have been correctly matched with the parts which they indicate



A. A- Adaxial epidermis, B- Xylem, C- Stoma, D- Sub-stomatal cavity, E- Abaxial epiddermis, F- Phloem, G-Mesophyll

B. A- Adaxial epidermis, B- phloem, C- Mesophyll, D-Sub- stomatal cavity, E- Abaxial epidermis, F- Xylem, G- Stoma

C. A- Abaxial epidermis, B-Xylem, C-Mesophyll, D-sub-stomatal cavity, E- Adaxial epidermis, F- Phloem, G-Stoma

D. A- Adaxial epidermis, B- Xylem, C- Mesophyll, D- Sub-stomatal cavity, E- Adaxial epidermis, F-Phloem, G-Stoma

Answer: D

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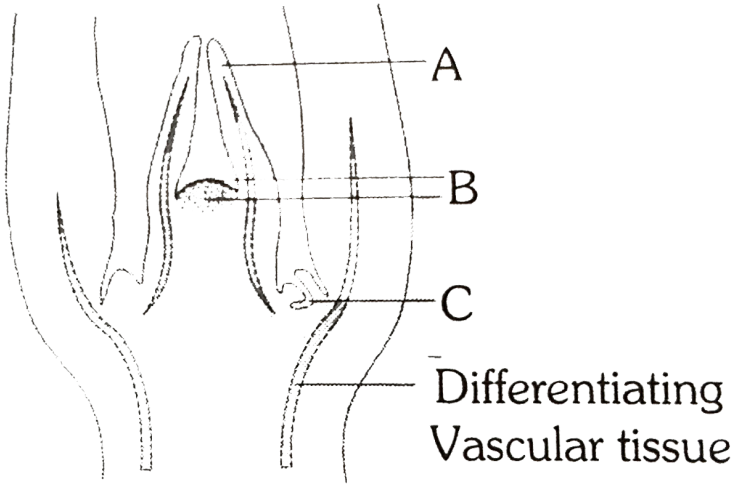
356. Identify the following point A, B and C in the given diagram



A. A- Root hair primordium, B- Root apical meristem, C- Terminal bud

B. A- Root hair primordium, B- Root apical meristem, C- Axillary bud

C. A- Leaf primordium, B- Shoot apical meristem, C- Apical bud

D. A- Leaf primordium, B- Shoot apical meristem, C- Axillary bud

Answer: D

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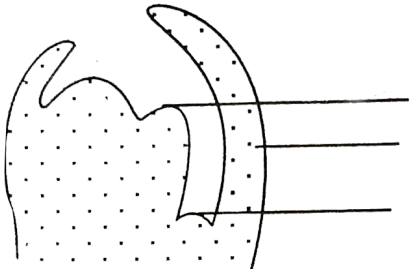
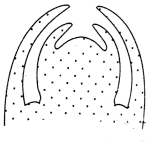
357. The following diagram opposite illustrates a longitudinal section through a shoot apex. Which of the figures gives below shows the correct appearance of this

shoot apex at the formation of the next leaf primordium



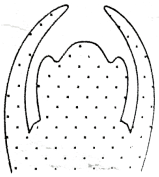
A. (a)

B. (b)



C. (c)

D. (d)



Answer: A

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358. A few drops of sap were collected by cutting across a plant stem by a suitable method. The sap was tested chemically. Which one of the following test results indicates that it is phloem sap ?

A. Absence of sugar

B. Acidic

C. Alkaline

D. Low refractive index

Answer: C

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359. Assertion : All tissues lying inside vascular cambium are called as bark.

Reason : Bark is made up of phellogen, phellem and phelloderm lying inside secondary phloem.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion

B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is false

D. If both the assertion and reason are false

Answer: D

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360. Assertion : Stomata are absent in submerged hydrophytes.

Reason : Respiration occurs by means of air chambers in submerged plants.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion

B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is false

D. If both the assertion and reason are false

Answer: B

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361. Assertion : Cambium is a lateral meristem and cause growth in width.

Reason : Cambium is made up of fusiform and ray initials in stem.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion

B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is false

D. If both the assertion and reason are false

Answer: B

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362. Assertion : Higher plants have meristematic regions for indefinite growth.

Reason : Higher plants have root and shoot apices.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion

B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is false

D. If both the assertion and reason are false

Answer: A

363. Assertion : In collateral vascular bundles phloem is situated toward inner side.

Reason : In monocot stem, cambium is present .

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion

B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is false

D. If both the assertion and reason are false

Answer: D

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364. Assertion : Thick cuticle is mostly present in disease resistant plants.

Reason : Disease causing agents cannot grow on cuticle and cannot invade the cuticle.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion

B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is false

D. If both the assertion and reason are false

Answer: A

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365. Assertion : Quiescent centre is found in the centre of the root apex.

Reason : It consists of actively dividing cells .

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion

B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is false

D. If both the assertion and reason are false

Answer: C

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366. Assertion : Sclerenchyma cells do not have plasmodesmata.

Reason : The cell walls of some permanent tissues are heavily lignified.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion

B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is false

D. If both the assertion and reason are false

Answer: A

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367. Assertion : Intercalary meristem increase length of plant like apical meristems.

Reason : Intercalary meritem originates from the apical meristems.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion

B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is false

D. If both the assertion and reason are false

Answer: A

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368. Assertion : Apical and intercalary meristems contribute to the growth in length, while the lateral meristems bring increase in girth in maize.

Reason : Apical and intercalary meristems always increase the height of plants.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion

B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is false

D. If both the assertion and reason are false

Answer: D

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369. Assertion : Xerophytic leaves may contain stomatal crypts or sunken stomata.

Reason : Spongy parenchyma is more in xerophytic leaves.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion

B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is false

D. If both the assertion and reason are false

Answer: C

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370. Assertion : Xylem and phloem are also called as leptome and hadrome respectively .

Reason : Xylem and phloem form conducting tissue of the plant.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion

B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is false

D. If the assertion is false but reason are true

Answer: D

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371. Assertion : The upper surface of the leaf is darker than the lower surface.

Reason : Spongy mesonphyll contains less chloroplasts than palisade mesophyll cells.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion

B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is false

D. If both the assertion and reason are false

Answer: A

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372. Assertion : Typloses plug the tracheids and vessels.

Reason : Tylosers are in growth of xylem cells.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion

B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is false

D. If both the assertion and reason are false

Answer: C

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373. Assertion : Cuticel is also present in lower epidermal region of the leaf.

Reason : The lower epidermis contains a large numbers of stomata.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion

B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is false

D. If both the assertion and reason are false

Answer: B

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374. Assertion : Bulliform cells are useful in the unrolling of leaf .

Reason : Bulliform leaves store water.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion

B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is false

D. If both the assertion and reason are false

Answer: B

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375. Assertion : In grasses and cerelas, intercalary meristems are not present.

Reason : Intercalary meristems form permanent tissues.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion

B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is false

D. If the assertion is false but reason are true

Answer: D

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376. Assertion : Sapwood is less durable than the heartwood.

Reason : Hollow tree trunks are due to the disappearance of sapwood.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion

B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is false

D. If both the assertion and reason are false

Answer: C

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377. Assertion : Idioblasts are derived from parenchyma.

Reason : Secretory cells are modified parenchyma.

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion

B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is false

D. If both the assertion and reason are false

Answer: B

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378. Assertion : Growth rings are also called as annual rings.

Reason : Generally growth ring is formed in each year

A. If both the assertion and the reason are true and the reason is a correct explanation of the assertion

B. If both the assertion and reason are true but the reason is not a correct explanation of the assertion

C. If the assertion is true but the reason is false

D. If both the assertion and reason are false

Answer: A

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379. When strong wind blows, the plants bend down and then again become erect. This flexibility in plants is due to

Or

Whose living cells provide tensile and mechanical strength

A. Sclerenchyma

B. Parenchyma

C. Collenchyma

D. Chlorenchyma

Answer: C

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380. Quiescent centre is the zone of

A. Least mitotic activity in the root apex

B. Least mitotic activity in the shoot apex

C. Maximum mitotic activity in the root apex

D. Maximum mitotic activity in the shoot apex

Answer: A

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381. In the tropics there is no sharp distinction of season and the wood contains vessels of the same size in late wood and early wood . Such wood is called

A. Porous

B. Ring porous

C. Ring and diffuse porous

D. Diffuse porous

Answer: D

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382. Cuticle is absent in

A. Mesophytes

B. Young roots

C. Mature stems

D. Leaves

Answer: B

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383. Cytologically vascular cambium (lateral meristem) differs from apical meristem by

A. Presence of vacuoles, storage materials and thin cell wall, isodiametric cells

B. Presence of vacuoles, storage materials and thick cell wall, isodiametric as well as radially elongated cells

C. Presence of vacuoles, storage materials and thick radial cell wall, isodiametric as well as radially elongated cells

D. Presence of vacuoles, storage materials and thin protoplasm, isodiametric cells

Answer: C

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384. vascular bundles are arranged in a ring in the member of family

A. Orchidaceae

B. Iridaceae

C. Euphorbiaceae

D. Liliaceae

Answer: C

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385. The stems of hydrophytic plants are soft and weak because of the poor development of

A. Pith and supporting parenchyma

B. Phloem and companion cells

C. Xylem and supporting tissue

D. Cortex and endodermis

Answer: C

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386. A concentric amphivasal (leptocentric) vascular bundle is one in which

A. Centrally located phloem is surrounded by the xylem or xylem surrounds phloem

B. Centrally located xylem is surrounded by phloem

C. Xylem is flanked by phloem on the interior and exterior side only

D. Phloem is flanked by the xylem on interior side only

Answer: A

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387. Which combination of tissues act together to provide the support to the hypocotyl of a seedling

A. Xylem and phloem fibres

B. Epidermis and parenchyma

C. Xylem and parenchyma

D. Epidermis and collenchyma

Answer: D

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388. The bicollateral vascular bundle is the characteristic feature of plants belonging to the family

A. Cruciferae

B. Liliaceae

C. Cucurbitaceae

D. Malvaceae

Answer: C

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389. In a dicotyledonous stem, the sequence of tissues from the outside to the inside is

A. Phellem-Pericycle-Endodermis-Phloem

B. Phellem-Phloem-Endodermis-Pericycle

C. Phellem-Endodermis-Pericycle-Phloem

D. Pericycle - Phellem -Endodermis - Phloem

Answer: C

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390. The distinct cavities (lacunae) found in a mature vascular bundle of maize stem are formed due to

A. Disruption of protoxylem as well as lysis of adjacent xylem parenchyma

B. Disruption of protoxylem alone

C. Lysis of xylem parenchyma

D. Dissolution of common wall between a few metaxylem elements and their consequent coaliton

Answer: B

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391. After preparing a transverse section out of a cut piece of a plant axis, it was seen that it has a C shaped open arch of endarch collateral vascular bundles with

secondary growth. This indicates that it is a transverse section of

A. A dicotyledonous petiole

B. A dicot stem at the node

C. A dicot root at the point where a root branch is coming out

D. A phylloclade

Answer: A

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392. Annual rings are the bands of

A. Secondary cortex and cork

B. Secondary vascular tissues

C. Secondary xylem and medullary rays

D. Secondary phloem and medullary rays

Answer: B

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393. If you cut the old trunk of a tree transversely, you will observe that the outer region of secondary wood is lighter in colour. This region of wood is known as

A. Autumn wood

B. Sap wood

C. Heart wood

D. Spring wood

Answer: B

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394. Which of the following is true for the origin of epidermis and hypodermis

A. Epidermis from corpus and hypodermis from tunica

B. Epidermis from tunica and hypodermis from corpus

C. Both from tunica

D. Both from corpus

Answer: B

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395. Which of the following is not a part of epidermal tissue system

A. Companion cells

B. Trichomes

C. Root hairs

D. Guard cells

Answer: A

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396. Pericycle in roots is responsible for

A. Formation of lateral roots

B. Proividing mechanical support

C. Formation of vascular bundle from cortex

D. Formation of vascular bundle from endodermis

Answer: A

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397. Medullary rays are made up of

A. Parenchymatous cells

B. Sclerenchymatous cells

C. Tracheids

D. Fibres

Answer: A