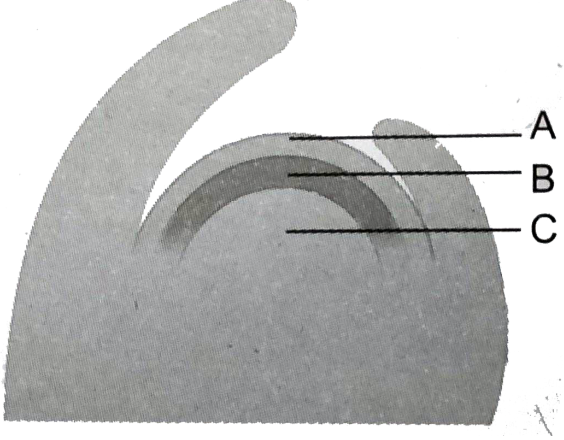
BIOLOGY

BOOKS - SARAS PUBLICATION

TISSUE AND TISSUE SYSTEM

Exercise

1. Refer to the given figure and select the correct statement.



(i) A, B, and C are histogen of shoot apex.

(ii) A Gives rise to medullary rays.

(iii) B Gives rise to cortex.

(iv) C Gives rise to epidermis.

A. I and ii only

B. ii and iii only

C. I and iii only

D. iii and iv ony

Answer:

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2. Read the following sentences and identify the correctly mathced sentences.

In exarch condition, the protoxylem lies oustide of metxylem. II. In endarch condition, the protoxylem lies towards the centre. III. In centrarch condition, metaxylem lies in the

middle of the protoxylem. IV. In mesarch condition, protoxylem lies in the middle of the metaxylem.

A. I and ii and iii only

B. ii, iii and iv ony.

C. I, ii and iv only

D. All of these.

Answer:

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3. In Gymnosperms, the activity of sieve tubes are controlled by

A. Nearby sieve tube members.

B. Phloem parenchyma cells.

C. Nucleus of companion cells

D. Nucleus of albuminous cells.

Answer:

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4. When a leaf trace extends from a vascular bundle in a dicot stem, what would be the arrangement of vascular tissues in the veins of the leaf?

A. Xylem would'be on top and the phloem on the bottom.

B. Phloem would be on top and the xylem on the bottom.

C. Xylem would encircle the phloem

D. Phloem would encircle the xylem.

Answer:

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5. Grafting is successful in dicots but not in monocots because the dicots have

A. Vascular bundles arranged in aring.

B. Cambium for secondary growth

C. Vessels with elements arranged end to end.

D. Cork cambium

Answer:

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6. Why the cells of sclerenchyma and tracheids become dead?

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7. Distinguish the anatomy of dicot root from monocot root.

Watch Video Solution

8. Distinguish the anatomy of dicot stem from monocot stem.

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9. Explain Sclereides with their types?

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10. What are sieve tubes ? Explain.

Watch Video Solution

11. Collenchyma is characterized by the presence of

A. Polygonal cells yvith deposits of cellulose and pectinall over the wall.

B. Isodiametric cells with deposits of cellulose and pectin at the corners.

C. Elongated cells with thickening at the corners.

D. Isodiametric cells with thickening all over the wall.

Answer:

12. What are the main functions of lateral meristem?

A. Pith

B. Cambium

C. Xylem

D. Corlex

Answer:

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13. The region in apical meristem develps into

A. Endodermis

B. Pericyle

C. Epidermis

D. Vascular tissue

Answer:

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14. Hydathodes are component of

A. Vascular tissue system

B. Ground tissue system

C. Epidermal tissue system.

D. Cortex tissue system

Answer:

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15. Which of the following is a living structure?

A. Sclerenchyma

B. Parenchyma

C. Xylem vessel

D. Tracheid

Answer:

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16. In collenchyma, the thickening of corners is made up of

A. Pectin

B. Lignin

C. Suberin

D. Resin

Answer:

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17. Sclereids are also known as

A. Accessory cells

B. Companion cells

C. Stone cells

D. Guard cells

Answer:

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18. Which one is the simple tissue.

A. Tracheids

B. Phloem tissues

C. Collenchyma

D. Xylem tissues

Answer:

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19. Type of cambium located between pholem and xylem is classified as

A. Shoot cambium

B. Root cambium

C. Vascular cambium

D. Cork cambium

Answer:

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20. Collenchyma occurs in the stem and petioles of

A. Xerophytes

B. Monocots

C. Dicots

D. Hydrophytes

Answer:

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21. Who proposed Tunica corpus theory?

A. Hanstein

B. Shcmidt

C. Popham

D. Sanio

Answer:

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22. Pericycle of roots produces

A. Mehcnical support

B. Lateral roots

C. Vascular bundles

D. Adventitious buds

Answer:

Watch Video Solution

23. What is true about a monocot leaf

A. Reticulate venation

B. Absence of bulliform cells from epidermis

C. Mesophyll not differentiated into palisade and spongy tissues.

D. Well differentiated mesophhyll.

Answer:

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24. Where do the Casparian bands occur

A. Epidermis

B. Endodermis

C. Pericycle

D. Phloem

Answer:

Watch Video Solution

25. Angular collenchyma occurs in

A. Datura

B. Helianthus

C. Althaea

D. Salvia.

Answer:

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26. Which of the following are non-nucleated cells?

A. Palisade cell

B. Cortical cell

C. Sieve tubes

D. Companion cell

Answer:

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27. Vessels are found in

A. All angiosperms and some gymnosperms

B. Most of angiosperms and few gymnosperms.

C. All angiosperms, all gymnosperms and some pteridophytes.

D. All pteriodophytes.

Answer:

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28. Radial arrangement of vascular tissues are found in

A. Monocot root

B. Dicot root

C. Monocot stem

D. Dicot stem

Answer:

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29. Which of the following statement is true.

A. Trachea have narrow lumen.

B. Tracheids have narrow lumen

C. Vessels have narrow lumen

D. Tracheids have wide humen

Answer:

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30. Transpiration and exchange fo gases are function of

A. Stomata

B. Xylem

C. Both (a) and (b)

D. Phloem

Answer:

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31. A group of cells alike in form, function and origin are called

A. Tissue

B. Organ

C. organelle

D. None of these

Answer:

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32. Plant length is increased by

A. Apical meristems

B. lateral meristems

C. periblem

D. Parenchyma

Answer:

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33. Collenchyma mainly forms

A. Hypodermis

B. Epidermis

C. Phloem

D. Inner cortex

Answer:

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34. Phloem in the plants perform the function of

A. conduction of food

B. Conduction of water

C. Providding support

D. Photosynthesis.

Answer:

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35. The number of passage cells are equivalent to the number of

A. Phoem cells

B. Protoxylem cells

C. Metaxylem cells

D. Xylem cells

Answer:

Watch Video Solution

36. Pith and cortex do not differentiate in

A. Monocot root

B. Monocot stem

C. Dicot stem

D. Monocot leaf

Answer:

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37. In monocot leaves, the mesophyll consists of

A. Aerenchyma

B. Only spongy chlorenchyma

C. Only palisade

D. Palisade and spongy chlorenchyma.

Answer:

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38. In monocote stem the vascular bundles are

A. Arranged in a ring

B. Arranged alternatively

C. Present inside endodermis

D. Scattered in ground tissue.

Answer:

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39. Exarch condition of Xylem is found only in

A. Leaf

B. Root

C. Flower

D. Stem

Answer:

40. Bulliform cells are found in the leaves of

A. Sunflower

B. Nerium

C. Maize

D. Lotus

Answer:

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41. Casparian strips are found on the

A. Walls of pericyle cells

B. Walls of endodermal cells

C. Walls of epidermal cells

D. Walls of bundle sheath cells

Answer:

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42. Which tissue provides elasticity to the growing parts of the plant

A. Collenchyma

B. Aerenchyma

C. Parenchyma

D. Sclerenchyma.

Answer:

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43. The dead element of the phloem is

A. Sieve cells

B. Companion cells

C. Sieve tubes

D. Phloem fibre

Answer:

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44. Root hair always

A. Cuticularized

B. Very long

C. Multicellular

D. Unicellular

Answer:

Watch Video Solution

45. Closed type of vascular bundle lacks

A. Xylem

B. Sclerenchyma

C. Phloem

D. Cambium

Answer:

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46. The lateral meristem increses the

A. height of the plant

B. Thickness of trunk

C. Size of the leaf

D. Branches of root

Answer:

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47. Conjoint, collateral and open vascular bundles are found in

A. Monocot stem

B. Monocot leaf

C. Dicot stem

D. Dicot stem

Answer:

Watch Video Solution

48. Passage cells are found in

A. Endodermis

B. Pericyle

C. Hypodermis

D. Epidermis

Answer:

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49. Pericycle is formed of

A. Collenchyma

B. Parenchyma

C. Chlorencyma

D. Conjuctive tissue

Answer:

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50. Companion cells are

A. Living and non- nucleated

B. Dead and non-nucleated

C. Dead but nucleated

D. Living and nucleated

Answer:

51. In maize stem, the vascular bundles are

A. Arranged in a ring

B. Scattered - irregularly

C. Arranged in two rings

D. Scattered but smaller towards periphery.

Answer:

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52. The ends of trahceids are

A. Tapering

B. Flat

C. Perforated

D. Wall less

Answer:

Watch Video Solution

53. The region of stele begins with

A. Cortex

B. Parenchyma

C. Endodermis

D. Pericycle

Answer:

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

A. Close

B. Radial

C. Open

D. Conjoint

Answer:

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55. Match the following

1. Maize stem	- Conjoint and closed
2. Sunflower stem	- Radial
3. Maize root	- Conjoint and open.

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56. Match the following

1. Parenchyma	- Elongated and narrow
2. Collenchyma	- Elongated and tubular
3. Sclerenchyma	- Star shaped
4. Phloem sieve tubes	- Polygonal
5. Companion cells	- Isodiametric

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57. In Gymnosperms, the activity of sieve tubes are controlled by

A. Nearby sieve tube members

B. Phloem parenchyma cells

C. Nucleus of companion cells

D. Nucleus of albuminous cells

Answer:

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58. Grafting is successful in dicots but not in monocots because the dicots have

A. Vascular bundles arranged in a ring

B. Cambium for secondary growth

C. Vessels with elements arranged end to end

D. Cork cambium

Answer:

59. Hydathodes are component of

A. Vascular tissue system

B. Ground tissue system

C. Epidermal tissue system

D. Cortex tissue system

Answer:

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60. Pith and cortex do not differentiate in

A. Monocot root

B. Monocot stem

C. Dicot stem

D. Monocot leaf

Answer:

61. Read the following sentences and identify the correctly mathced sentences.

In exarch condition, the protoxylem lies oustide of metxylem. II. In endarch condition, the protoxylem lies towards the centre. III. In centrarch condition, metaxylem lies in the middle of the protoxylem. IV. In mesarch condition, protoxylem lies in the middle of the metaxylem.

A. i, ii and iii only

B. ii, iii and iv only

C. i, ii and iv only

D. All of these

Answer:

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62. Why the cells of sclerenchyma and tracheids become dead?

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63. List the types of sclereids

Watch Video Solution

64. Which parenchyma is called as stellate parenchyma? Give examples.

Watch Video Solution

65. Define eustele.

Watch Video Solution

66. What is Hypodermis

Watch Video Solution

67. Write the functions of protederm.

Watch Video Solution

68. Distinguish the anatomy of dicot stem from monocot stem.

Watch Video Solution

69. What are sieve tubes ? Explain.

Watch Video Solution

70. Describe macrosclereids.

Watch Video Solution

71. Draw a diagram to show position of different types of meristems.

Watch Video Solution

72. Write notes on bulliform cells.

Watch Video Solution

73. What are idioblasts?

Watch Video Solution

74. Distinguish the anatomy of dicot root from monocot root.

Watch Video Solution

75. Which part of an angiosperm plant has protostele? Describe the anatomy of this part in a dicot plant.

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Example

1. Define Plant Anatomy.

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2. What is the other name of xylem and phloem?

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3. Define Histology.

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4. What are the two main types of tissues found in plants?

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5. How is meristematic tissue classified on the basis of position?

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6. Define apical meristem

Watch Video Solution

7. Where is intercalary meristem found? Give example.

Watch Video Solution

8. What are the main functions of lateral meristem?

Watch Video Solution

9. What is meant by aerenchyma?

Watch Video Solution

10. Which parenchyma is called as stellate parenchyma? Give examples.

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11. Define Exarch.

Watch Video Solution

12. Define- Endarch.

Watch Video Solution

13. Define Centrach.

Watch Video Solution

14. Write the types of cells in xylem.

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15. Name the different types of secondary wall thickening found in tracheids.

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16. What is meant by xylem fibres?

Watch Video Solution

17. What is axil parenchyma?

Watch Video Solution

18. Write short notes on protopholem.

Watch Video Solution

19. What is metaphloem?

 Watch Video Solution

20. What is meant by callose plug?

 Watch Video Solution

21. Define stele.

 Watch Video Solution

22. What is cutin?

Watch Video Solution

23. Write the types of tissue system.

Watch Video Solution

24. Define tissue system.

Watch Video Solution

25. What are silica cells?

Watch Video Solution

26. What is starch sheath?

Watch Video Solution

27. What is halophytes?

Watch Video Solution

28. What are idioblasts?

Watch Video Solution

29. What is syncyte? Give an example.

Watch Video Solution

30. Define eustele.

Watch Video Solution

31. What is " bundle cap " or " hard bast"?

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32. Write the names of soft fibres.

Watch Video Solution

33. Name the types of fibres.

Watch Video Solution

34. What are the main functions of parenchyma tissues?

Watch Video Solution

35. Write the functions of ground tissue system.

Watch Video Solution

36. Describe the functions of vascular tissue system.

Watch Video Solution

37. Which components are present in epidermal tissue system?

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38. Define stomata.

Watch Video Solution

39. What are guard cells?

Watch Video Solution

40. What are amphicribral vascular bundles?

Watch Video Solution

41. What are amphivasal vasculra bundles?

Watch Video Solution

42. What is collateral vascular bundle?

Watch Video Solution

43. Describe bicollatareal vascular bundles.

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44. Give an account on piliferous layer.

Watch Video Solution

45. Write the functions of protederm.

Watch Video Solution

46. Name the types of meristem based on plane of division.

Watch Video Solution

47. Define passage cells

Watch Video Solution

48. In which group of plants the guard cells are dumb - bell shaped?

Watch Video Solution

49. What is intrastelar ground tissue?

Watch Video Solution

50. What is Hypodermis

Watch Video Solution

51. Define vascular bundles.

Watch Video Solution

52. Write the function of passage cells in plants.

Watch Video Solution

53. Write notes on bulliform cells.

Watch Video Solution

54. Write short notes on trichomes.

Watch Video Solution

55. Write short notes on wood fibres.

Watch Video Solution

56. Explain Bast fibres?

Watch Video Solution

57. Write a short note on Phloem parenchyma.

Watch Video Solution

58. Write the functions of epidermal tissue system.

Watch Video Solution

59. What are Casparian strips?

Watch Video Solution

60. Explain types of vascular bundles.

Watch Video Solution

61. List out the types fo trichomes?

Watch Video Solution

62. Write notes on strasburger cells?

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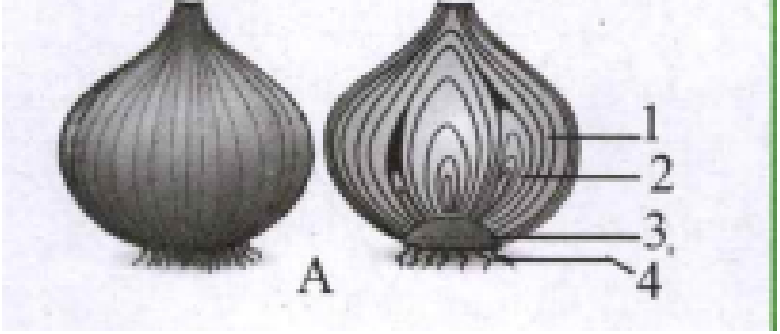
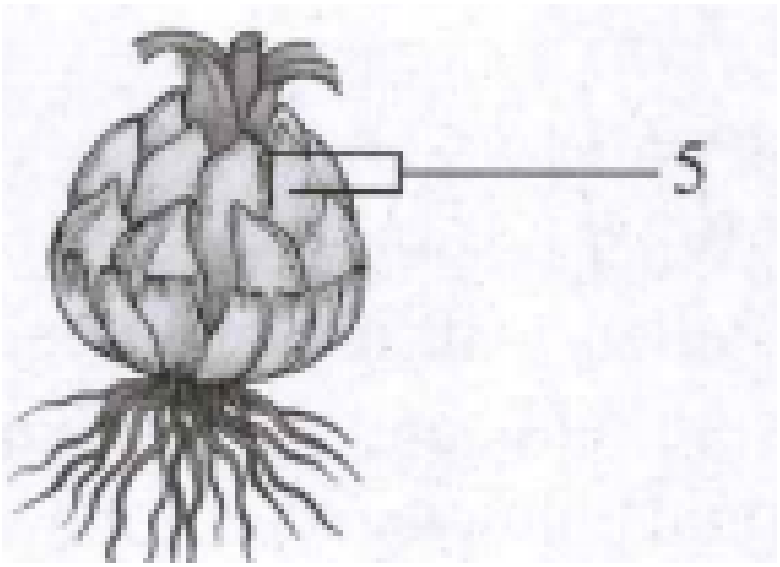
63. Identify the given diagrams A and B and label the parts 1 to 5.





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64. Write short notes on prickles.

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65. Define Pith.

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66. Write short notes on pericycle.

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67. Main steps related to variety development are given below. But one step is missing.

a. Identify the missing step.

b. What is the significance of the step in variety development?

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68. Draw a diagram to show position of different types of meristems.

Watch Video Solution

69. Enumerate the characters of meristematic tissue.

Watch Video Solution

70. Distinguish the apical meristem from lateral meristem.

Watch Video Solution

71. Write short note on mesophyll of dicot leaf.

Watch Video Solution

72. Explain the economic importance of fibres in our daily life.

Watch Video Solution

73. Write short notes on tunica corpus theory.

Watch Video Solution

74. What is Quiescent centre? Add a note its importance.

Watch Video Solution

75. Describe Korper - Kappe theory.

Watch Video Solution

76. Write short notes on fibres?

Watch Video Solution

77. Explain the types of wood fibres.

Watch Video Solution

78. What are parenchyma cells?

Watch Video Solution

79. Explain the types of vascular bundles.

Watch Video Solution

80. Which part of an angiosperm plant has protostele? Describe the anatomy of this part in a dicot plant.

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81. Can mangrove trees grow in salt water? Explain.

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82. Which leaf has no differentiation in mesophyll cells? Explain the anatomy of this monocot leaf.

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83. Which type of leaf has bean-shaped guard cells? Describe the anatomy of such leaf.

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84. Which type of stem has a scattered arrangement of vascular bundles.?

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85. Explain the primary structure of monocot root.

Watch Video Solution

86. Explain the anatomy which type of a stem has medullary rays.

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87. Describe the histogen theory.

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88. Explain the apical cell theory of root apical meristem.

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