



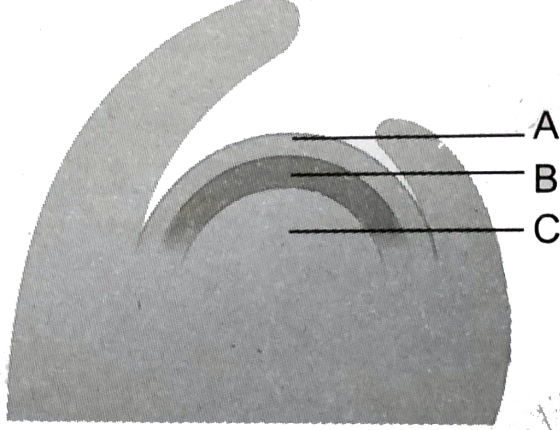
BIOLOGY

BOOKS - PREMIERS PUBLISHERS

TISSUE AND TISSUE SYSTEM

Textbook Questions Answers

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) only

Answer: C



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

In exarch condition, the protoxylem lies outside 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: C



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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: C



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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: A



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5. 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: B



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



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7. Explain sclereids with their types.



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8. What are sieve tubes ? Explain.



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



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



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Other Important Questions Answers Choose The Correct Answer

1. Choose the correct answer.(1 mark)

Who is the father of plant anatomy?

A. David Muller

B. Katherine Esau

C. Nehemiah Grew

D. Hofmeister

Answer: C



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2. The study of internal structure and organisation of plant is called:

A. plant taxonomy

B. plant anatomy

C. plant physiology

D. plant ecology

Answer: B



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3. The book "Anatomy of seed plants" is written by:

A. Hanstein

B. Schmidt

C. Nichol森

D. Katherine Esau

Answer: D



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4. The term meristem is coined by

A. Nageli

B. Robert

C. Stevers

D. Clowes

Answer: A



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5. Which of the statements is not correct?

A. Meristematic cells are self perpetuating

B. Meristematic cells are most actively
dividing cells

C. Meristematic cells have large vacuoles

D. Meristematic cells have dense cytoplasm
with prominent nucleus

Answer: C



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6. Apical cell theory proposed by:

A. David brown

B. Hofmeister

C. Land mark

D. Clowes

Answer: B



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7. The tunica is:

A. the peripheral zone of shoot apex, that
forms cortex

B. the inner zone of shoot apex,that forms
stele

C. the peripheral zone of shoot apex,that
forms epidermis

D. the inner zone of shoot apex,that forms
cortex and stele

Answer: C



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8. Which of the histogens gives rise to root cap?

A. Plerome

B. Periblem

C. Dermatogen

D. Calyptrogen

Answer: D



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9. Quiescent centre concepts was proposed by:

A. Lindall

B. Clowes

C. Holstein

D. Sanio

Answer: B



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10. Parenchyma cells which stores resin, tannins, calcium carbonate and calcium oxalate are termed as:

- A. chromatoblast
- B. chromoblasts
- C. idioblasts
- D. astroblasts

Answer: C



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11. Petioles of banana is composed of:

A. storage parenchyma

B. stellate parenchyma

C. angular collenchyma

D. prosenchyma

Answer: B



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12. Which of the following statements is not correct about sclerenchyma?

A. Sclerenchyma is a dead cell

B. It lacks protoplasm

C. The cell walls of these cells are uniformly thickened

D. Sclerenchyma are actively dividing cells

Answer: D



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13. The seed coat of ground nut is made up of:

A. stone cells

B. osteosclereids

C. macrosclereids

D. parenchyma cells

Answer: B



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14. Plant fibers are modified:

A. sclerenchyma cells

B. collenchyma cells

C. parenchyma cells

D. none of the above

Answer: A



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15. The term xylem was introduced by:

A. Alexander

B. Nageli

C. Holstein

D. Schemidt

Answer: B



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16. What type of xylem arrangement is seen in *Selaginella* sp?

A. Endarch

B. Exarch

C. Centrarch

D. Mesarch

Answer: C



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17. In cross section, the tracheids are:

- A. hexagonal in shape
- B. rectangular in shape
- C. triangular in shape
- D. polygonal in shape

Answer: D



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18. In grasses the guard cells in stoma are:

A. bean shaped

B. irregular shaped

C. dumbbell shaped

D. bell shaped

Answer: C



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19. Bulliform cells are present in:

A. mango

B. grasses

C. ground nut

D. potato

Answer: B



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20. The sunken stomata:

A. reduce water loss by transpiration

B. increase water loss by transpiration

C. increase heatloss by evaporation

D. neither reduce nor increase water loss
by transpiration

Answer: A



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21. In *Ocimum* the trichomes are:

A. non-glandular

B. fibrous

C. glandular

D. none of these

Answer: C



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22. In dicot stem, the hypodermis is generally:

A. parenchymatous

B. sclerenchymatous

C. collenchymatous

D. none of these

Answer: C



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23. Casparian strips contain thickenings of:

A. calcium carbonate and calcium oxalate

B. carbohydrate, protein and lignin

C. crystal of calcium oxalate

D. lignin,suberin and some other
carbohydrates

Answer: B



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24. Indicate te correct statement:

A. Albuminous cells in gymnosperms are a
nucleated parenchyma cells.

B. Albuminous cells in gymnosperms are nucleated collenchyma cells.

C. Albuminous cell in gymnosperms are nucleated, thin walled parenchyma cells.

D. Albuminous cells in gymnosperms are a nucleated sclerenchyma cells.

Answer: C



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25. Secondary phloem is derived from:

- A. apical meristem
- B. vascular cambium
- C. primary phloem
- D. none of the above

Answer: B



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26. Which of the following statements is not correct?

A. The outer most layer of the root is called piliferous layer.

B. The chief function of piliferous layer is protection.

C. Piliferous layer is made up of parenchyma cells with intracellular space.

D. Piliferous layer is made up of parenchyma cells without intracellular space.

Answer: D



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27. In beans, the metaxylem vessels are generally:

A. polygonal in shape

B. circular in shape

C. rectangular in shape

D. triangular in shape

Answer: A



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28. Who discovered the Annular collenchyma?

A. Clowes

B. Sanio

C. Nageli

D. Duchaigne

Answer: D



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29. The main function of xylem is:

A. to conduct the minerals to various parts
of plants

B. to conduct oxygen to various parts of
plant body

C. to conduct water and minerals from root
to the other parts of the plant body

D. to conduct stored food to various parts
of plant body

Answer: C



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30. In maize the vascular bundles are:

- A. scattered
- B. concentric
- C. excentric
- D. radial

Answer: A



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31. stomata in leaves of a plant are used for:

A. transpiration

B. transpiration and gas exchange

C. gas exchange

D. none of the above

Answer: B



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32. Which of the statements is not correct?

A. Paliside parenchyma cells are seen
beneath the upper epidermis

B. Paliside parenchyma cells contain more
chloroplasts

C. Paliside parenchyma cells are irregularly
shaped

D. The function of paliside parenchyma is
photosynthesis

Answer: C



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33. Spongy parenchyma cells are:

A. irregularly shaped

B. elongated cylindrical cells

C. very lightly arranged cells

D. with more number of chloroplasts than

palisade parenchyma

Answer: A



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34. The main function of spongy parenchyma is:

- A. photosynthesis
- B. exchange of gases
- C. exchange of minerals
- D. water transport

Answer: B



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35. All mesophyll cells in monocot leaf are nearly:

- A. isodiametric and thick walled
- B. irregular and thick walled
- C. isodiametric and thick walled
- D. irregular and thin walled

Answer: C



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36. Structurally, hydathodes are modified:

A. cambium tissue

B. parenchyma

C. pith

D. stomata

Answer: D



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37. Hydathodes occurs in the leaves of:

- A. desert plants
- B. submerged aquatic plants
- C. floating aquatic weeds
- D. forest trees

Answer: B



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38. The process of guttation is seen in:

A. grasses

B. dicot plants

C. desert plants

D. Nerium

Answer: A



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39. Salt glands are present in:

A. hydrophytes

B. hydrophytes

C. halophytes

D. merophytes

Answer: C



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40. The term sieve tubes is coined by:

A. Schleiden

B. Hanstein

C. Tsehreh

D. Hartig

Answer:



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Other Important Questions Answers Answer The Following

1. Define a tissue.



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2. What are the different types of plant tissues?



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3. Enumerate the characters of meristematic tissue.



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4. Mention the function of apical meristem.



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5. What is mean by carpus?



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6. Explain apical cell theory?



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7. What is meant by angular collenchyma?



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8. Explain briefly Branchysclereids or stone cells.



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9. Define filiform sclereids.



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10. Distinguish between Libriform fibres and Fibre tracheids.



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11. Explain Bast fibres?



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12. What is meant by endarch type of xylem arrangements?



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13. What are the types of cells present in phloem?



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14. Define epiblema?



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15. Explain bulliform cells in grasses.



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16. What is meant by Sunken Stomata?



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17. Mention any two functions of epidermal tissue system in plants.



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18. Define chlorenchyma?



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19. What is meant by casparian strips?



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20. What are albuminous cells?



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21. Describe briefly radial types of vascular Bundles.



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22. Define stele.



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23. What is meant by cambium?



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24. What are silica cells?



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25. Define hydathode?



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26. Answer the following:(3 Marks)

Explain apical cell theory.



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27. Describe the histogen theory.



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28. What is meant by quiescent centre concept?



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29. Explain the term "sclereids".



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30. Explain briefly about plant fibres.



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31. What is meant by xylem fibres?



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32. Explain companion cells.



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33. Distinguish between meristematic tissue and permanent tissue.



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34. Write down the differences between tracheids and fibres.



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35. Give a brief answer on subsidiary cells in plant leaves.



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36. Explain the term trichomes.



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37. What do you understand about hypodermis in plant tissue system.



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38. What is pith?



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39. Explain the piliferous layer as epiblema.



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40. What is meant by stele in plant stem?



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41. Explain the nature of phloem in dicot stem.



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42. Explain the mesophyll layer of leaf.



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43. Mention any three differences between stomata and hydathodes.



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44. What are halophiles?



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45. Answer in detail.

Explain Histogen theory,



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46. Describe the structure and function of different kinds of parenchyma tissues?



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47. Describe the types of tracheids with diagram.



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48. What are the different types of plant tissues?



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49. Compare the vascular tissues of plant.



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50. Draw & label the ground plan of T.S of Dicot root





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51. Describe the vascular bundles of monocot stem.



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52. Draw and label the transverse section of monocot stem.



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53. Explain the parts of a flower, with a neat labelled diagram.



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