

# **BIOLOGY**

## **BOOKS - SARAS PUBLICATION**

## **SECONDARY GROWTH**

Exercise

**1.** Consider the following statements. In spring season vascular cambium i. is less active ii.

Produces a large number of xylary elements iii.

Forms vessels with wide cavities of these.

A. (i) is correct but (ii) and (ii) are not correct

B. (i) is not correct but (ii) and (iii) are correct

C. (i) and (ii) are correct but (iii) is not correct.

D. (i) and (ii) are not correct but (iii) is correct.



- **2.** Usually, the monocotyledons do not increase their girth, because
  - A. They possess actively dividing cambium
  - B. They do not possess actively dividing cambium.
  - C. Ceases activity of cambium

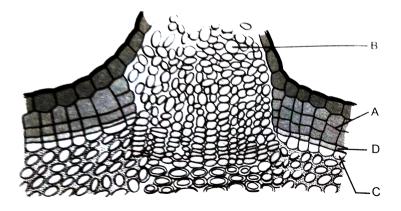
D. All are correct.

#### **Answer:**



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**3.** In the diagram of Identical the aprts marked as A,B,C,D.



A. A. phellem, B. Complementary tissue, C.

Phelloderm, D. Phellogen.

B. A. Complementary tissue, B. Phellem, C.

Phellogen, D. Phelloderm.

C. A. Phellogen, B. Phellem, C. Phelloderm, D.

Complementary tissue

D. A. Phelloderm, B. Phellem,

Complementary tissue, D. Phellogen.

### **Answer:**



<b>4.</b> The common bottle cork is a product of	4.	The	common	bottle	cork is	ар	roduct	of
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- A. dermatogen
- B. Xylem
- C. Phellogen
- D. Vascular cambium



<b>5.</b> The	increase	in girth	is called
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- A. Primary growth
- B. Secondary growth
- C. Longitudinal growth
- D. Tertiary growth



**6.** In monocots, usually there is no secondary growth there is no secondary growth and so they are

A. Soft

B. Hard

C. Thick

D. Thin

### **Answer:**



7.	The	vascular	cambium	produces	the
sec	conda	ry vascular	tissues	and	

- A. Primary xylem and secondary phloem
- B. Secondary phloem and primary xylem
- C. Secondary xylem and secondary phloem
- D. Secondary xylem and primary phloem.



**8.** Interfascicular cambium joins with the intrafascicular cambium on both sides to form a continuous ring. It is called a

- A. Vascular cambial ring
- B. Intrafascicular cambial ring
- C. Cork cambial ring
- D. Stratified cambial ring

### **Answer:**



- **9.** Consider the following statements.

  Organization of vascular cambium
- (i) The cells of vascular cambium do not fit into the usual description (ii) vascular cambium possesses Cells with large central vacuole surounded by a thin, layers of dense cytoplasm (iii) The vascular combium is the presence of three kinds of initials.
  - A. (i) is correct but (ii) and (ii) are not correct

B. (i) and (ii) are correct but (iii) is not correct.

C. (i) and (ii) are correct but (iii) is not correct.

D. (i) and (ii) are not correct but (iii) is correct.

## Answer:



**10.** The cells which are produced out ward form in vascular cambial ring is

- A. Secondary xylem
- B. Secondary phloem and primary xylem
- C. Primary phloem
- D. Primary xylem

### **Answer:**



<b>11.</b> The secondary xylem is also called
A. Leaf
B. Root
C. Wood
D. Bark
Answer:  Watch Video Solution

**12.** The study of wood by preparing sections for microscopic observation is termed as:

- A. Histology
- B. Phloemtomy
- C. Anatomy
- D. Xylotomy

### **Answer:**



13. The axial system consits of vertical files of

A. Treachery elements, fibers and wood parenchyma

B. Treachery elements and fibers

C.

D.

**Answer:** 



### 14. Pinus has

- A. Porous wood
- B. Non-porous wood
- C. Spring wood
- D. Hard wood

### **Answer:**



## 15. Apical meristems produce

- A. The primary plant body
- B. The secondary plant body
- C. The tertiary plant body
- D. All of these.

### **Answer:**



**16.** The activity of vascular cambium is under the control.

A. Many physiological factors

B. Environmental factors

C. a and b

D. None of these

### **Answer:**



**17.** The determination of the age of a tree by counting the annual rings is called

- A. Dendroclimatology
- B. Dendrochronology
- C. Chronology
- D. Climatology

### **Answer:**



**18.** The age of American, sequoiadendron tree is about

- A. 530 years
- B. 3,500 years
- C. 3,700 years
- D. 3,505 years.

### **Answer:**



19. Which one of the following is an example
for diffuse porous wood?

- A. Quercus
- B. Pinus
- C. Morus rubra
- D. Acer



## 20. The wood of Quercus plant is

- A. Diffuse porous
- B. Central porous
- C. Ring porous
- D. None of these

#### **Answer:**



<b>21.</b> In	the	resin	ducts	are	blocked	by
tylose like ing	rowt	hs.				

- A. Angiosperms
- B. Gymnosperms
- C. a and b
- D. None of these



### 22. In Bombax

- A. the resin ducts are blocked by like out growths.
- B. the sieve tubes are blocked byu tylose like ingrowths.
- C. the sieve tubes are blocked by tylose like out growths.
- D. the resin ducts are blocked by tylose like in growths.



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**23.** In any three the outer part of the wood, which is paler in colour, is called

- A. sap wood
- B. heart wood
- C. Porous wood
- D. ring porous wood



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**24.** When\_\_\_\_ is destroyed, the plant will die because conduction of water will be blocked.

- A. heart wood
- B. hard wood
- C. sap wood
- D. soft wood



- **25.** The vascular cambium ring produces

  \_\_\_\_\_ or bast on the outer side of the vascular bundle.
  - A. Primary xylem and secondary phloem
  - B. secondary xylem
  - C. secondary phloem
  - D. Primary phloem



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**26.** Whenever stems and roots increase in thickness by secondary growth, which part replaces the epidermis?

A. periderm

B. phellem

C. phellogen

D. phelloderm



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27. Consider the following statements. Phellem is (i) the protective tissue. (ii) replace the epidermis in older stems and roots of many seed plants. (iii) characterized by irregularly arranged tiers and rows of cells.

A. (i) is correct but (ii) and (ii) are not correct

B. (i) is not correct but (ii) and (iii) are correct

C. (i) and (ii) are correct but (iii) is not correct.

D. (i) and (ii) are not correct but (iii) is correct.

### Answer:



# **28.** Which tree has scale bark?

- A. Quercus
- B. Pinus
- C. Morus rubra
- D. Guava.

### **Answer:**



29	is	helpful	in	exchange	of	gases
and transpirat	tio	n.				

- A. Bark
- **B.** Lenticel
- C. Periderm
- D. Phellem



30.	The	phellem	layer	of	bark	tissue	is
harv	/ested	for com	mercial	use	e prim	arily fro	m

- A. Cinnamomum zeylanicum
- B. Quercus suber
- C. hevea brasiliensis
- D. Acacia senegal



<b>31.</b> T	urpentine	obtained	from	bark of
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- A. Hevea brasiliensis
- B. Quercus suber
- C. Cinnamomum zeylanicum
- D. Conifers



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32. Gum arabic obtained from

- A. Acacia senegal
- B. Cinnamomum zeylanicum
- C. Quercus suber
- D. Pinus



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**33.** \_\_\_\_ growth in dicot roots is essential to provide strength to growing aerial parts of the plants.

B. Primary
C. Teritary
D. None of these
Answer:  Watch Video Solution
<b>34.</b> Phelloderm is otherwise called as
A. Secondary cortex

A. Secondary

- B. Cork cambium
- C. Primary cortex
- D. Cork



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**35.** The roots and stems grow in length with the help of \_\_\_\_\_

A. Lateral meristems

- B. Apical meristems
- C. Inercalary meristems
- D. Primary meristems



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**36.** The secondary growth in dicots and gymnosperms is brought about by \_\_\_\_\_and cork cambium.

B. Phloem				
C. Xylem				
D. Phellogen				
Answer:				
Watch Video Solution				
<b>37.</b> cambium is present inside the vascular bundles.				

A. Vascular cambial ring

A. Vascular
B. Interfascicular
C. Intrafascicular
D. Stratified
Answer:  Watch Video Solution
<b>38.</b> Non-stratified cambium is otherwise known as

- A. Fascicular cambium
- B. Interfascicular cambium
- C. Non-storied
- D. Stratified cambium



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**39.** The vascular cambial ring, when active, cuts off \_\_\_\_\_ both towards the inner and outer side.

- A. New cells
- B. Lateral meristem
- C. Longitidunal cells
- D. Ray cells



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40. \_\_\_\_ and \_\_\_\_ get gradually crushed due to the continued formation of secondary xylem and phloem.

A. Primary xylem and secondary phloem						
B. Primary phloem						
C. Secondary xylem						
D. Secondary phloem						
Answer:  Watch Video Solution						
<b>41.</b> is an example of porous wood.						
A. Red wood						

C. Quercus suber				
D. Morus rubra				
Answer:				
Watch Video Solution				
<b>42.</b> Annual rings are less distinct in				
plants.				
A. Dicot leaf				
, a Dicoc ical				

B. Pinus

B. Species
C. Temperate
D. Desert
Answer:
Watch Video Solution
<b>43.</b> Annual rings are called
A. Growth rings
B. Ring bark

- C. Scale bark
- D. Phelloids



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**44.** \_\_\_\_\_ word is used by the wood anatomists to refer the vessels as pores in transverse section.

A. Tyloses

C. Vessels
D. Fibers
Answer:
Watch Video Solution
<b>45.</b> Diffuse porous wood and wood are the two main types of angiosperm woods.
A. Porous wood

**B.** Porous

- B. Ring bark
- C. Ring porous
- D. Sap wood



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**46.** \_\_\_\_\_are tylose like ingrowths found in gymnosperms and angiosperms.

A. Phellogen

- B. Tylosoids
- C. Complementary tissue
- D. Sap wood



- **47.** \_\_\_\_\_ wood is more durable.
  - A. Sap
  - B. Hard

C. near t	C.	Heart
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D. Spring

## **Answer:**



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# **48.** Heart wood is also known as\_\_\_\_\_

A. sap wood

B. Duramen

C. Alburmum

D. Soft wood
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**49.** Abies balsamea produces \_\_\_\_\_ from its resin ducts.

A. Amber

B. Canada balsam

C. Gum

D. Resin

### **Answer:**



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**50.** Growth rings are produced by the activity of\_\_\_\_\_

A. Meristem

B. Xylem

C. Phloem

_			
I)	Cam	hı	IIM
<b>–</b> •	Carr		<b>G</b> 1 1 1



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**51.** Vasular cambium is the \_\_\_\_\_ meristem.

- A. Primary
- B. Lateral
- C. Intercalary
- D. Apical



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**52.** \_\_\_\_\_ consists of phellem, phellgoen and phelloderm.

- A. Cambium
- **B.** Lenticel
- C. Periderm
- D. Cork



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# **53.** Quercus is an example for \_\_\_\_\_

A. Rhtidome

B. Duramen

C. Tylosoids

D. Diffuse porous wood

#### **Answer:**

**54.** If the phellogen forms a complete cylinder around the stem, it gives rise to

A. Ring porous

B. Pseudo rings

C. Ring barks

D. Growth rings

**Answer:** 



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**55.** \_\_\_\_\_ is an example for ring bark plant.

A. Quercus

B. Pinus

C. Morus

D. Guava.

#### **Answer:**



<b>56.</b> Lenticel is fromed during	in stems.
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- A. Primary growth
- B. Secondary growth
- C. Teritary growth
- D. None of these



57	is	an	alkaloid	found	in	Cinchona
bark.						

- A. Nicotine
- B. Morphine
- C. Strychnine
- D. Quinine



**58.** What is secondary growth?



**59.** What are the two types of lateral meristem?



**60.** What is vascular cambium?



**61.** What is vascular cambial ring?



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**62.** What are the two types of vascular cambium recognized based on the arrangement of the fusiform initials?



**Watch Video Solution** 

**63.** What are fusiform initials?



**64.** Write notes on storied cambium.



**65.** What is non-storied cambium?



**Watch Video Solution** 

**66.** What is xylotomy?



**67.** Spring wood - comment





**Watch Video Solution** 

68. Define dendrochronology.

**69.** Define dendroclimatology.



**70.** What is diffuse porous wood?



**Watch Video Solution** 

71. What is ring porous wood?



**Watch Video Solution** 

72. What is Tyloses?



**73.** Mention some plants from which bast fibres are obtained.



**74.** What is periderm? How does periderm formation take place in dicot stem?



75. What are Phelloids? **Watch Video Solution 76.** What is rhytidome? **Watch Video Solution** 77. What is polyderm? **Watch Video Solution**  **78.** What is Phelloderm? Watch Video Solution **79.** What is scale bark? **Watch Video Solution** 80. Define lenticel. **Watch Video Solution**  **81.** What is complementary tissue?



**Watch Video Solution** 

82. Mention the functions of lenticels.



**Watch Video Solution** 

83. A secondary tissue A is formed of three components namely outer B, middle C and inner D. C is a lateral meristemproducing an

outer protective tissue B containing lenticels and inner tissue D which has loosely arranged cells containing chlorpolast. Identify A,B,C and D



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**84.** What are pseudo annual rings?



85. The table given below describes the intrafascicular cambium and interfascicular cambium. Identify the missing words.



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**86.** What are tylosoids?



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**87.** Write short notes on secondary phloem.



88. Write short notes on phellem.



89. Write short notes on phellogem.



**90.** Explain bark. Write its uses.



**91.** Which life process is responsible for the annual rings in tree trunks? Explain this process.



**92.** Describe the origin and formation of vascular cambium.



**93.** Describe the organization of vascular cambium.



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**94.** Write notes on the activity of vascular cambium.



95. Describe secondary xylem.



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**96.** Label A,B,C,D,E in the dicot root. Ametaxylem , B-protoxylem, C-phloem, D-pericycle, E-endodermis.



**97.** Write down the economic importance of wood.



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**98.** Write down the economic importance of barks.



**99.** Explain the process of secondary growth in stems of woody angiosperm with help of schematic diagrams. What is the significance?



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**100.** Usually , the monocotyledons do not increase their girth, because

A. They possess actively dividing cambium

B. They do not possess actively dividing cambium

C. Ceases activity of cambium

D. All are correct

## **Answer:**



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101. The common bottle cork is a product of

A. Dermatogen

- B. Phellogen
- C. Xylem
- D. Vascular cambium

## **Answer:**



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

- A. It is retained in the center of the axis
- B. It gets crushed
- C. May or may not get crushed
- D. It gets surrounded by primary phloem

## **Answer:**



- 103. Phelloderm is otherwise called as
  - A. Secondary cortex

B. Cork cambium
C. Primary cortex
D. Cork
Answer:
Watch Video Solution
<b>104.</b> Heart wood is also known as

A. Sap wood

B. Duramen

C. Alburnum

D. Soft wood

## **Answer:**



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**105.** In which season the vessles of angiosperms are larger in size, Why?



106. What is periderm ? Mention its components.



**Watch Video Solution** 

107. Define lenticel.



**Watch Video Solution** 

**108.** What is xylotomy?



109. What is non-storied cambium?



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110. Define dendroclimatology.



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111. In a forest, if the bark of a tree is damaged by the horn of a deer, How will be plant

overcome the damage?



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112. A timber merchant bought 2 logs of wood from a forest & named A & B, The log A was 50 year old & B was 20 years old. Which log of wood will last longer for the merchant? Why?



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**113.** What are tylosoids?



**114.** Describe the origin and formation of vascular cambium.



**115.** Write down the economic importance of barks.



116. A transverse section of the trunk of a tree shows concentric rings which are known as growth rings. How are these rings formed? What are the significance of these rings?



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117. A transverse section of the trunk of a tree shows concentric rings which are known as growth rings . How are these rings formed ? What are the significance of these rings?



**118.** Mention some plants from which bast fibres are obtained.



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**119.** Name the tissue that bring about secondary growth in dicots.



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

A. It is retained in the center of the axis

B. it gets crushed

C. May or may not get crushed

D. It gets surrounded by primary phloem.

**Answer:** 



**2.** In which season the vessles of angiosperms are larger in size, Why?



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**3.** In a forest, if the bark of a tree is damaged by the horn of a deer, How will be plant overcome the damage?



**4.** Continuous state of dividing tissues called meristem. In connection to this, what is the role of lateral meristem?



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**5.** A timber merchant bought 2 logs of wood from a forest & named A & B , The log A was 50 year old & B was 20 years old. Which log of wood will last longer for the merchant ? Why?



**6.** A transverse section of the trunk of a tree shows concentric rings which are known as growth rings. How are these rings formed? What are the significance of these rings?



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**7.** What is secondary growth?



8. What is vascular cambium? **Watch Video Solution** 9. What is vascular cambial ring? **Watch Video Solution** 10. What are fusiform initials? **Watch Video Solution** 

11. What is non-storied cambium? **Watch Video Solution** 12. What is xylotomy? **Watch Video Solution** 13. Spring wood - comment **Watch Video Solution** 

**14.** Define dendrochronology.



**Watch Video Solution** 

**15.** Define dendroclimatology.



**Watch Video Solution** 

**16.** What is diffuse porous wood?



17. What is ring porous wood?



**Watch Video Solution** 

18. What is Tyloses?



**Watch Video Solution** 

19. What is periderm ? Mention its components.



**20.** What are Phelloids?



**Watch Video Solution** 

**21.** What is rhytidome?



**Watch Video Solution** 

22. What is polyderms?



23. What is Phelloderm? Watch Video Solution 24. What is scale bark? Watch Video Solution 25. Define lenticel.

**26.** What is complementary tissue?



**Watch Video Solution** 

27. What are pseudo annual rings?



**Watch Video Solution** 

28. What are tylosoids?



29. Define 'bark'.

