

## KONGU METRIC HR SEC SCHOOL

KARUMANDAMPALAYAM

Time :45min

ERODE

Mark:35

STD- 11

SUB : BIO-BOTANY

LESSON: 9

I CHOOSE THE BEST ANSWER  $8 \times 1 = 8$ 

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

- (i) In exarch condition, the protoxylem lies outside of metaxylem.
- (ii) In endarch condition, the protoxylem lie towards the centre.
- (iii) In centarch 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

2. 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.

3. In 1914, Haberlandt coined the term xylem as Hadrome and Leptome for \_\_\_\_\_ and he classified the meristems.

- a) Parenchyma b) Collenchyma c) Sclerenchyma d) Phloem

4. The mass, rib and plate meristem was discovered by Schuepp in \_\_\_\_\_ year.

- a) 1920 b) 1923 c) 1926 d) 1928

5. Piliferous layer of the root has two types of epidermal cells, long cells and short cells. The short cells are called.

- a) Trichomes b) stellate hair c) Trichoblast d) Glandular

6. 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

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

- a) absence of secondary xylem b) absence of secondary phloem
- c) presence of cortex d) position of protoxylem

8. Assertion: Long distance flow of photo assimilates in plants occurs through sieve tubes. Reason: Mature sieve tubes have partial cytoplasm and perforated sieve plates

- a) Both assertion and reason are true and reason is the correct explanation of assertion
- b) Both assertion and reason are true, but reason is not the correct explanation of assertion
- c) Assertion is true but reason is false.
- d) Assertion and reason are false.

II ANSWER THE FOLLOWING QUESTIONS (any 4)  $4 \times 2 = 8$ 

9. What are the types of histogen theory in root apical theory

10. What is Quiescent centre concept

11. What is stellate parenchyma?

12. Draw the diagram and label the parts of angular collenchyma

13. Define sunken stomata

14. What is trichoblasts

III ANSWER THE FOLLOWING QUESTIONS (19 COMPULSORY) ( Any 3) 3×3=9

15. Different between meristematic tissue and permanent tissue – 14

16. T.S of nerium leaf

17. Different between tracheids and fibres

18. Write about function of epidermal tissue

19. a)What is passage cell b). What is casparian strips

IV ANSWER THE FOLLOWING QUESTIONS

20. Explain types of sclereids (or) Explain various types of vascular bundle

21. Different between dicot root and monocot root

(Or) Draw and label the parts of dicot leaf

R.Ramachandran.M.sc,B.Ed.,  
Bio-Botany