

Name of the course: B.Sc. Life Science

Name of the paper: Plant Cell and Developmental Biology

Semester : III

Max. Marks: 30

Q1. Give one word answer for the following:

10 marks

- (a) A cell and tissue type in which the primary cell walls are unevenly thickened.....
- (b) A vascular bundle which has strands of xylem and phloem on the same radius
- (c) Vessels are characterized by the presence of
- (d) Thalamus of *Pyrus* has Sclereids
- (e) The structure in endodermis that blocks the apoplastic transport in roots.....
- (f)in roots is responsible for the formation of lateral roots.
- (g) Multiseriate epidermis in the roots of orchids
- (h)cell divisions are characteristic of tunica layer.
- (i) In grasses help in rolling of leaves.
- (j) The epidermal cells bordering the guard cells are called.....

Q2. Write short notes on the following: (2.5x4=10 marks)

- (a) Root cap and its function
- (b) Theories of root apical meristem/shoot apical meristem
- (c) Kranz anatomy
- (d) Functions of parenchyma

Q3. Differentiate between: : (2.5x4=10 marks)

- (a) Tracheids and vessels
- (b) C3 and C4 plants
- (c) Parenchyma and sclerenchyma/collenchyma
- (d) Monocot and dicot root/stem