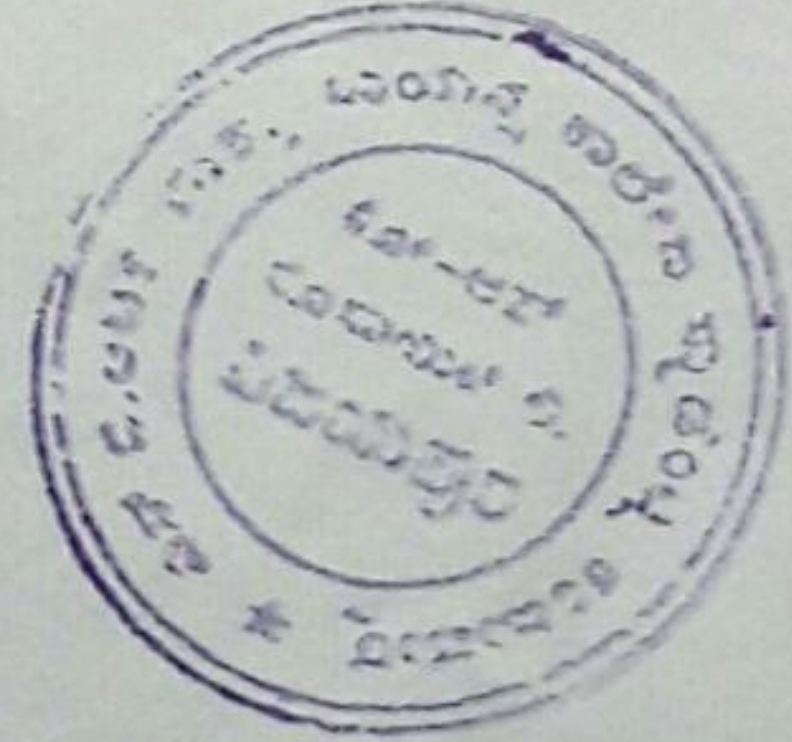


**S. B. Arts & K.C.P. Science College,
VIJAYAPUR- 586 103.**



ASSIGNMENT

For B.A./ B.Sc.^{1st} Semester
2017 - 2018

Name of the Student Aishwarya M. Kabade

Roll No. 602 R.C.U. Seat No. _____

Subject Botany

Assignment No.	Date	Marks Assigned	Marks Obtained	Name and Signature of Teacher	Remarks
1	05.10.18	03	03		
2					
3					
4					

Assignment: -

Describe the mechanical / secretory tissue system in angiosperm.

→ Mechanical tissue

For the existence & stability of a plant, the development of mechanical or strengthening tissues is a necessity. They help the plant to not only maintain a particular shape but also to withstand the various kind of mechanical strain & stress that they are often subjected to under the prevailing or changing environment conditions. The stem has to bear the weight of aerial parts. often extension & heavy & branches have to withstand transverse stresses caused by load of leaves & periodically flowers by load of leaves & periodically flowers & fruits. The leaves have to bear shearing stress against high winds. The root system has to stand longitudinal compression caused by the aerial parts, a pushing force from the swaying stem & branches & also applied lateral pressure by the surrounding soil.

kinds of Mechanical tissue.

- Sclerenchyma.
- collenchyma.
- vessels & tracheids.
- sclereids

1 Sclerenchyma :- Is the most important & efficient mechanical tissue. It is widely distributed in plants for the specific purpose of mechanical strength. It includes bast fibres.

2 wood fibres.

3 collenchyma :- It is mostly another such tissue. It is mostly associated with young growing parts. finally forming a structure of those organs. & is flexible

3 Vessels & tracheids :- It is also mechanical strength to the plant body.

4 sclereids :- It is often meet local strain, sometimes spread types of sclerenchyma develop in various parts of plant body to meet local mechanical needs they are known as sclereids.

* Types of sclereids -

- ① Branchysclereids.
- ② Macrosclereids
- ③ Astrosclereids.
- ④ Ostrosclereids.

Principle Governing the distribution of Mechanical tissues.

- 1 Inflexibility.
- 2 Inexibility.
- 3 Incompressibility.

→ Secretory Tissue :-

a Laticiferous Tissue :-

This tissue consists of two main components.

- ① latex vessels.
- ② latex cells.

1 Latex vessels :- They are a result of the fusion of many cells. They are formed from rows of elongated, meristematic cells. The partition walls of which dissolve as in wood vessels. They grow more or less as a parallel ducts, & in the mature portion of the plant they anastomose with one another by fusion of their branches forming a network. E.g. - opium poppy.

2 Latex cells :- On the other hand. Although much branched like the latex vessels. are really single or independent units. They originate as minute structure & then with the growth of the plant, elongate & branch ramifying