

V.P.& R.P.T.P. Science College

Bsc. 4th SEMESTER Examination, 2019

Plant Histology, Taxonomy, Physiology and Genetics

Subject code -US04EBOT01

Date : 08/03/2019 Day: Friday Time: 3:00p.m to 5:00pm. Total Marks: 50

Note : * All questions are to be attempted.

*Figures to the right indicate marks.

Q: 1 Choose the correct answer from the given options.

08

1) Air spaces are found in:

a) Parenchyma b) Aerenchyma c) Chlorenchyma d) Xylem

2) Mature sieve tube members are usually?

a) Nucleated b) Enucleated c) Both d) None

3) Inferior ovary is present in:

a) Rubiaceae b) Labiatae c) Mimosaceae d) All the above.

4) Many vegetable yielding and pulse yielding plants belong to the family.

a) Rubiaceae b) Leguminosae c) Lamiaceae d) Myrtaceae

5) What is the action spectrum of transpiration?

a) Green & Ultra violet b) Orange & Red c) Blue & far red d) Blue & Red

6) Guard cells have a positive role in?

a) Transpiration b) Respiration c) Photosynthesis d) Guttation

7) An individual with two identical members of a pair of genetics factors is called.

a) Heterozygote b) Homozygote Maize c) Both d) None of these.

8) The ratio of dominant epistasis is.

a) 12:3:1 b) 1:1:1:1 c) 3:1 d) All of these

Q: 2 Answer the following question (Any Five).

10

1. Write different between fiber and sclereids.

2. Write the function of xylem & phloem.

3. Write the botanical name of any two plants belonging to the family Rubiaceae with their economic importance.

4. Write the types of placentation in the following families: Labiatae , Mimosaceae, Myrtaceae, Brassicaceae.

5. Give the functions and deficiency symptoms of Nitrogen.

6. Differentiate between transpiration and guttation.

7. What is Back cross?

8. Define the term Gene & Allele.



Q: 3 Write note on:

a) Distinguish between tracheid and vessel. 04

b) What is tissue? what are the chief features of collenchyma? 04

OR

Q: 3 Describe the important treachery elements found in angiospermic plant body. 08

Q: 4 Describe the main floral characters of families Cruciferae and Caesalpiaceae 08

OR

Q: 4 Write note on:

a) Verticillaster.

b) Biological concepts of species.

04

04

Q: 5 Explain in details noncyclic photophosphorylation .

08

OR

Q: 5 Describe the various methods employed for breaking dormancy of seeds 08

Q: 6 Explain dominant and recessive epistasis with suitable example. 08

OR

Q:6 Explain the mechanism of linkage and crossing over in brief. 08

