



V.P. & R.P.T.P. Science College
B.Sc.-IVth Semester
BOTANY-US04CBOT02

(Plant Anatomy, Plant Embryology, Genetics and Plant Biotechnology)

Date-12/03/2019

Day- Tuesday

Time-3.00-5.00 p.m.

Marks: 50

Q-1 Multiple choice questions.

(08)

(1) Laticiferous vessel is found in_____.

- (a) Phloem tissue (b) Xylem tissue (c) Cortex (d) none of these

(2) Floral nectarines associated with_____.

- (a) Root (b) stem (c) leaves (d) flowers

(3) A microspore is the first cell of_____.

- (a) male gametophyte (b) male sporophyte
(c) female gametophyte (d) female sporophyte

(4) Double fertilization refers to the fusion of_____.

- (a) two polar nuclei (b) egg & polar nuclei
(c) Secondary nucleus with male gamete
(d) one male gamete with the egg & another with two polar nuclei

(5) Synapsis is the pairing of_____.

- (a) homologous chromosome (b) analogous chromosome
(c) acentric chromosome (d) all of these

(6) The ratio of dominant epistasis is_____.

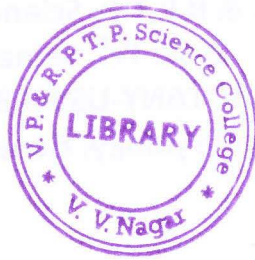
- (a) 1:1:1:1 (b) 3:1 (c) 12:3:1 (d) none of these

(7) The process of sterilization may be achieved by_____.

- (a) heating (b) chemicals (c) both (d) none

(8) White biotechnology is commonly known as _____ biotechnology.

- (a) agricultural (b) industrial (c) both (d) none



Q-2 Attempt any five.

(10)

- (i) Define: Storied cambium.
- (ii) Explain: Laticiferous tissue.
- (iii) What is cross-pollination?
- (iv) Explain: Syngamy.
- (v) Write the significance of Linkage.
- (vi) Define: Test-cross.
- (vii) What are transgenic plants?
- (viii) Define: Gene theory.

Q-3 Describe anomalous secondary growth in Boerhavia stem.

(08)

OR

Q-3 Define: Stomata. Write their types and describe.

(08)

Q-4 Define: Placentation. Describe its types.

(08)

OR

Q-4 Explain: (a) Pollination in Commelina and Sunflower.
(b) Monosporic embryo sac.

(04)

(04)

Q-5 (a) Write a note on: Law of Segregation.

(05)

(b) Define: Incomplete dominance.

(03)

OR

Q-5 Describe: Mendel's experiment.

(08)

Q-6 Write about: Application of biotechnology in agriculture and industry.

(08)

OR

Q-6 Describe: Biotechnology in biodiversity and its conservation.

(08)