

[A-14]

SEAT No. _____

No. of Printed Pages : 02

SARDAR PATEL UNIVERSITY

B.Sc - 4th SEMESTER- BOTANY

US04EBOT01 (2010-Batch)

(Plant Histology, Taxonomy, Physiology and Genetics)

10/04/2019, ^{Wednesday} ~~Friday~~, 10.00 a.m. -12.00 noon, Marks-70

10/04/2019
Wednesday

Q-1 Multiple choice questions.

(10)

- (i) Parenchyma which performs photosynthesis is called:
(a) chlorenchyma (b) collenchymas (c) aeranchyma (d) sclerenchyma
- (ii) Air spaces are found in _____.
(a) parenchyma (b) aeranchyma (c) chlorenchyma (d) collenchyma
- (iii) Which of the following tissue retains the power of cell-division?
(a) collenchymas (b) sclerenchyma (c) parenchyma (d) all the above
- (iv) Epipetalous stamens and axile placentation are found in _____.
(a) Brassicaceae (b) Myrtaceae (c) Mimosaceae (d) Rubiaceae
- (v) Flower is zygomorphic in:
(a) Fabaceae (b) Myrtaceae (c) Rubiaceae (d) Cruciferae
- (vi) Corolla is gamopetalous in:
(a) Brassicaceae (b) Rubiaceae (c) Fabaceae (d) Caesalpinieae
- (vii) The metal ion involved in stomatal regulation is:
(a) Iron (b) Magnesium (c) Potassium (d) Zinc
- (viii) Hill's reaction occurs in:
(a) stroma (b) ground meristem (c) cristae (d) grana
- (ix) Crossing over occurs at:
(a) tetrad stage (b) leptotene (c) anaphase (d) metaphase
- (x) The yellow colour of cotyledon is dominant over:
(a) white (b) green (c) grey (d) red

Q-2 Attempt following questions (any ten).

(20)

- (i) What are complex tissues?
(ii) What are the functions of parenchyma cells?
(iii) Name the various types of meristem.
(iv) Describe the floral characters of family Caesalpinaceae.
(v) Write the economic importance of Brassicaceae family.
(vi) Describe the vegetative characters of Fabaceae.
(vii) Give two functions of the following minerals: (a) Nitrogen (b) Zinc.
(viii) Name the internal factors which inhibit transpiration.
(ix) Name four micronutrients required by plants.
(x) What is epistasis?
(xi) Name four stages involved in crossing over.
(xii) Define: Back cross.

①

(P.T.O.)

Q-3 Write about the structure, types and functions of sclerenchyma. (10)

OR

Q-3 Write notes on: (a) Collenchyma. (05)

(b) Xylem Parenchyma. (05)

Q-4(a) Give a brief account of: Biological concepts of Species. (06)

(b) Write the economic importance of Fabaceae. (04)

OR

Q-4 Describe the characters and economic importance of Rubiaceae. (10)

Q-5 Explain: Seed dormancy and seed germination. (10)

OR

Q-5 Write about the various external and internal factors that affect photosynthesis. (10)

Q-6 Describe following: (a) Incomplete dominance. (05)

(b) Dihybrid test-cross. (05)

OR

Q-6 Explain: (a) Supplementary genes. (05)

(b) 9:7 ratio. (05)

*****X*****

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