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SARDAR PATEL UNIVERSITY

S.Y.B.Sc (THIRD SEMESTER) EXAMINATION

SATURDAY 30th NOVEMBER, 2013

2.30 pm TO 5.30 pm

US03CBOT02 (Plant histology, Taxonomy, Economic Botany, Physiology) Total Marks- 70

Note – Draw neat and labelled diagram wherever necessary

Q -1 Multiple choice questions (10)

(1) The Cork cambium is an example of

- (a) Lateral meristem (b) Primary meristem (c) Apical meristem (d) Intercalary meristem

(2) Collenchyma is found in the stem and petiole of

- (a) Hydrophytes (b) Herbaceous climbers (c) Xerophytes (d) Lianas

(3) Gynobasic style is present in

- (a) Oscimum (b) Ixora (c) Cucurbita (d) None of these

(4) Name the family from which the rubber of commerce is obtained

- (a) Rubiaceae (b) Euphorbiaceae (c) Cucurbitaceae (d) None of these

(5) Papilionaceous corolla is found in

- (a) Fabaceae (b) Lamiaceae (c) Meliaceae (d) None of these

(6) *Tectona grandis* is the botanical name of

- (a) Sal (b) Shisam (c) Teak (d) Neem

(7) The botanical name of cotton plant is

- (a) *Crotolaria* (b) *Corchorus* (c) *Gossypium* (d) *Cinchona*

(8) Seed germination is affected by light is called

- (a) Photoblastic (b) Thermoblastic (c) Negative geoblastic (d) none of these

(9) During photosynthesis oxygen is evolved from

- (a) H₂O (b) Chlorophyll (c) CO₂ (d) Sunlight

(10) First stable product of C₃ cycle is

- (a) PGA (b) RUBP (c) H₂O (d) None of these

Q -2 Answer the following questions (Any Ten) (20)

(1) Write function of Aerenchyma

(2) What is Palisade parenchyma ?

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- (3) What are tracheary elements ?
- (4) Define – Monadelphous stamen
- (5) Explain corolla of Brassicaceae
- (6) Define – Hypogynous flower
- (7) Write two qualities of coffee
- (8) Write the uses of cotton
- (9) Write family and botanical name of Sal tree
- (10) What is germination ?
- (11) What is Photoperiodism ?
- (12) List the methods of breaking of seed dormancy

- Q -3 (a) Explain the structure and types of Sclerenchyma (05)
- (b) Explain the types of Meristem based on its position (05)

OR

- Q -3 (a) Describe the structure of Phloem (06)
- (b) Write note on xylem parenchyma and xylem fiber (04)

- Q -4 Explain the general characters and economic importance of Meliaceae family (10)

OR

- Q -4 Write general characters and economic importance of Asteraceae family (10)

- Q -5 (a) Describe the biological source ,properties and uses of Mustard oil (05)
- (b) Explain the cultivation and uses of Jute (05)

OR

- Q -5 (a) Explain the biological source , properties and uses of Ground nut oil (05)

- (b) Write family ,botanical name and uses of following

- (1) Mung (2) Rice (05)

- Q -6 (a) Explain the mechanism of opening and closing of Stomata (05)

- (b) Explain causes of Seed dormancy (05)

OR

- Q -6 (a) Explain the Non cyclic Photophosphorylation (05)

- (b) Write the role and deficiency symptoms of Potassium and Zinc (05)