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SARDAR PATEL UNIVERSITY

M. Sc (Int.) Biotechnology: First semester Examination

IGBT-Ist SEMESTER

Sub: PS01CIGB05 - PLANT SCIENCES

Wednesday, 26th October, 2016

Time: 10:00 a.m. to 1:00 p.m.

Total Marks: 70

- Q.1** Fill in the blanks by choosing appropriate option. **(08)**
- (a) Riccia is an example of
(a) Bryophytes (b) Lichen (c) Algae (d) Fungi
 - (b) The shape of chloroplast found in Spirogyra
(a) Spiral (b) Flat (c) cup shaped (d) none of them
 - (c) Botanical name of Arduisi is
(a) *Solanum album* (b) *Ocimum santum* (c) *Adiantum vasica* (d) None of them
 - (d) Ginger is modified.....
(a) Stem (b) Leaf (c) Root (d) All of them
 - (e) Large numbers of pollen grain produce in pollination
(a) Water (ii) Wind (iii) Animal (iv) Birds
 - (f) When pollen tube enters through integuments, is called as....
(a) Mesogamy (b) Porogamy (c) Chalazogamy (d) Isogamy
 - (g) In dicot stem, the type of vascular bundle is
(a) Conjoint and open (b) conjoint and close (c) Close (d) None of these
 - (h) In dominant epistasis, the phenotypic ratio of 9:3:3:1 is modified to....
(a) 9:3:4 (b) 9:7 (c) 12:3:1 (d) 15:1
- Q.2** Answer the following in short.(Any SEVEN) **(14)**
- (a) Sketch and label of Riccia thallus.
 - (b) What is Lichen? Write about its types.
 - (c) Sketch and label Cycas female cone
 - (d) Write any four characters of Malvaceae family
 - (e) Differentiate corm and bulb.
 - (f) Write botanical name and medicinal properties of Tulsi.
 - (g) Write down the method of grafting techniques. Explain bud grafting in short.
 - (h) Differentiate between Collenchyma and Sclerenchyma tissue
 - (i) Why Mendel called as the "Father of genetics"

(1)

- Q.3 (a) Explain chain like conjugation in Spirogyra. (06)
(b) Briefly describe sexual reproduction and life cycle of Mucor. (06)
OR
- (b) Explain morphology features of fern sporangia. (06)
- Q.4 (a) Write the botanical name, family and medical important of Akado and Neem. (06)
(b) Describe internal structure features of Cycas leaflet. (06)
OR
- (b) Discuss the identifying character and economic importance of the family Solanaceae (06)
- Q.5 (a) Discuss different types of ovules with suitable diagrams. (06)
(b) Give an account on vegetative reproduction in plants (06)
OR
- (b) What is pollination? Give detail description about its various types (06)
- Q.6 (a) Write note on (i) Test cross (ii) Back cross (06)
(b) Explain Seven characters of Pea plant studied by Mendel (06)
OR
- (b) Explain dominant epistasis with suitable example. (06)

Best of Luck

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