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A-70]

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SARDAR PATEL UNIVERSITY
M. Sc (Int.) Biotechnology First semester Examination April, 2016
IGBT-1st SEMESTER
PS01CIGB05 - PLANT SCIENCES
Thursday, 7th April, 2016
Time: 2:30 p.m. to 5:30 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) is the known as Flowering plant
(a) Cryptogam (b) Phanerogam (c) Bryophyta (d) None of them
 - (c) is called Black mold
(a) Rhizopus (b) Penicillium (c) Lichen (d) none of them
 - (d) Botanical name of Tulsi is
(a) *Solanum album* (b) *Ocimum santum* (c) *Adhoda vasica* (d) None of them
 - (e) Ginger is modified.....
(a) Stem (b) Leaf (c) Root (d) All of them
 - (f) When pollen tube enters through the funiculus it is called as.....
(a) Porogamy (b) Mesogamy (c) Chalazogamy (d) Isogamy
 - (g) Which of the following is test cross.....
(a) TT X TT (b) TT X tt (c) Tt X Tt (d) Tt X tt
 - (h) Conduction of water occurs through.....
(a) Xylem (b) Phloem (c) Sclerenchyma (D) Collerenchyma
- Q.2** Answer the following in short.(Any SEVEN) (14)
- (a) Sketch and label Cycas Female cone.
 - (b) What is Lichen? Write about its types.
 - (c) Draw external morphology of Riccia Thallus.
 - (d) Enlist important medicinal properties of *Adhatoda vasica*.
 - (e) Differentiate corm and bulb.
 - (f) Draw the structure of collenchyma and enlist its function.
 - (g) Define grafting. Enlist three grafting techniques.
 - (h) Why is Mendel called as the "Father of Genetics".
 - (i) Differentiate monocot and dicot.

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- Q.3 (a) Write a note on Internal structure of Cycas leaflet. (06)
(b) Briefly describe asexual reproduction in Mucor. (06)
OR
- (b) Write a short note on economic important of Algae. (06)
- Q.4 (a) Write the botanical name, family and medical important of Akado and Neem (06)
(b) Write a note on microsporophyll of Cycas. (06)
OR
- (b) Describe characteristics and economic importance of the family Malvaceae. (06)
- Q.5 (a) Discuss different types of ovules with suitable diagrams. (06)
(b) Write short note on double fertilization (06)
OR
- (b) What is pollination? Give detail description about its various types. (06)
- Q.6 (a) Define complex tissue. Name the various kinds of complex tissues and explain one in detail. (06)
(b) Describe the internal structure of sunflower stem with neat and labeled diagram. (06)
OR
- (b) Write note on: (i) Test cross (ii) Back cross (06)

Best of Luck