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STELLA MARIS COLLEGE (AUTONOMOUS) CHENNAI 600 086
(For candidates admitted during the academic year 2004-2005 & thereafter)

SUBJECT CODE: BT/MC/P663

B.Sc. DEGREE EXAMINATION, APRIL 2009
BRANCH V.A.-PLANT BIOLOGY AND PLANT BIOTECHNOLOGY
SIXTH SEMESTER

COURSE : MAJOR – CORE (PRACTICAL)
PAPER : PLANT PHYSIOLOGY, MOLECULAR GENETICS
& APPLIED BIOTECHNOLOGY

TIME : 3 HOURS **MAX. MARKS: 50**

1. **Outline the procedure, apparatus and materials required for investigating the physiological problem (A) assigned to you. Set up the experiment and tabulate the data observed. Report the results and leave the set up for valuation.** (20)
2. **Comment on the experimental set up. (B)** (5)
3. **Inoculate the explant (C) in the medium supplied to you. Write down the principle and procedure of the culture technique. Critically comment on its importance.** (10)
4. **Write critical notes on (D), (E), & (F)** (15)

1. Determination of Osmotic pressure of the given leaf.
2. Effect of environmental factors on transpiration. – light .
3. Separation of chloroplast pigments by paper chromatography.
4. Effect of quality of light on the rate of photosynthesis.
5. Determination of the rate of respiration using Ganong's Respiroscope.
6. Peroxidase activity – Substrate Variation.
7. Peroxidase activity – Enzyme variation.
8. Effect of CO_2 on the rate of photosynthesis.

