

**V.P. & R.P.T.P.SCIENCE COLLEGE**  
**INTERNAL TEST**  
**B.Sc. VI<sup>th</sup> SEMESTER**  
**BOTANY-US06CBOT05**

Date-14/03/2014  
Day- Friday

Marks-30  
Time-3.30-5.00p.m.

**Q-1 Answer in short (any three).**

- (i) Define the terms: (a) Totipotency (b) Explant
- (ii) Differentiate between Hybrid and Cybrid.
- (iii) What are the functions of different types of REs?
- (iv) What are the applications of PCR?
- (v) What are the features of cosmids?
- (vi) What is the role of Tum genes?



(06)

- Q-2 (a)** Briefly describe the growth hormones added to the culture medium.  
**(b)** What are the applications of plant tissue culture?

(05)

(03)

OR

- Q-2 (a)** What are the contributions of the following scientists?

- (i) Hanning (b) Nitch and Nitch (iii) Skoog (iv) Braun

(04)

*(b) What are the applications of micropropagation?*

(04)

- Q-3** Explain Sanger-Coulson method of DNA sequencing.

(08)

OR

- Q-3** Describe the construction of Genome Library.

(08)

- Q-4** Describe the organization of a typical plant gene.

(08)

OR

- Q-4 (a)** Briefly describe the direct gene transfer method by microprojectile bombardment.

(04)

- (b)** What are the general features of a vector?

(04)