VI Semester B.Sc. Examination, May 2016
(Semester Scheme) (Fresh + Repeaters)
(70 Marks - 2013-14 and Onwards)
(60 Marks - Prior to 2013-14)
BIOTECHNOLOGY - VII
Plant Biotechnology

Time: 3 Hours

Max. Marks: 70/60

Instructions: 1) Draw neat labelled diagrams wherever necessary.

- 2) 70 marks for students 2013-14 batch Onwards.
- 3) 60 marks for repeaters prior to 2013-14 batch
- 4) Q. IV, Section D is compulsory for students of 2013-14 batch Onwards.

SECTION - A

. Write short notes on the following:

 $(5 \times 2 = 10)$

- 1) Surface sterilization
- 2) Aurotrophic mutants
- 3) Endosperm culture
- 4) Patent Co-operation Treaty
- 5) Subunit Vaccine.

SECTION-B

II. Write any four of the following:

 $(4 \times 5 = 20)$

- 6) What are reporter genes? Write a note on luciferase gene expression.
- 7) Write the significance of Nif-gene transfer through tissue culture.
- 8) What is osmosis? What is the role of osmoticum in protoplast isolation?
- 9) What is the advantage of pollen culture over anther culture? Give 3 applications of anther and pollen culture.
- 10) Write a note on cytokinin. Give two examples of synthetic cytokinins.

P.T.O.



(3×10=30

SECTION - C

111.	. An	swer any three of the following:	(3×10
	11)	Define Somatic Embryogenesis. Explain in detail its procedure and significance.	
	12)	What are the different ways of protecting IPR? Write a note on Plant Br	eeder's

- Rights. 13) What is T-DNA? Describe the construction of binary vector system.
- 14) What is ovary culture? How is it done? Write 5 applications of it.
- 15) Describe the mechanism of somaclonal variation. How are somaclonal variants selected?

		(Fro	SECTION – D om 2013-14 Batch On	wards)			
IV.	An	swer the following in one	word or a sentence	each:	(10×1=10		
	16) Select the correct answer - 'Potassium is a macronutrient in Nutrient						
		a) False	b) True	netta linate est			
	17)	Give the other name of	'Ovuls'.	enctors singints			
18) Which explant is used for propagation of orchid plant Neoltia nidus							
		a) Root		c) Inflorescence			
19) Which Indian scientist first reported development of embryo from microsp of <u>Datura innoxia</u> ?							
		a) Maheshwari S.C.	b) Morel G.	c) White P. R.			
	20)	What are fusogens?					
	21)	Potato late blight is caus	sed by				
	22)	Choose the correct answer : a) RIA is Radial Immunological Assay b) RIA is Radio Immuno Assay.					
	23)	What are phytoalexins	? enullament				
	24)	gene was isolated from <u>Aequorea Victoria</u> a variety of jelly					
		fish. a) gfp	b) luc	c) X-gal			
	25)	Expand TRIPS.					