	Na	me :
	Re	g. No:
SI	SIXTH SEMESTER B Sc DEGREE EXAMINATIO (UG - CCSS)	N, MARCH 2014
	Microbiology (Elective Course)	
	MB 6B 21 (E2) - CELL AND TISSUE CU	JLTURE
ho	hours	Maximum: 30 Weightage
	Part A	
	(Answer all questions)	
las	asts can be produced from callus by enzymatic tre	eatment with
	a) cellulolytic enzymes	
b)	b) pectolytic enzymes	
c)	c) both a and b	
d)	d) proteolytic enzymes	
	is an excised piece of leaf or shoot used in mic	ro propagation
a)	a) micro shoot b) explant	
c)	c) medium d) callus	
las	ast is the cell lacking	
oge	genesis is	
llus	llus culture:	
a)	a) increasing the level of cytokinin induce shoot	formation
b)	b) increasing the level of cytokinin induce root fo	ormation
c)	c) increasing the level of auxin induce shoot form	nation
d)	d) none of these	
ilit	ility of a cell to produce the whole plant is called .	
ave	ave is used for	
s D	DNA is used for	
nica	nical used for surface sterilization is	
id o	id cells contain set of chromosomes	
fo11	ollowing	
edi	edium	
		$(12v^{1}/c = 3 \text{ Weightage})$

Microbiology

(Elective Course)				
MB 6B 21 (E2) - CELL AND TISSUE CULTURE				
Time: Three ho	urs	Maxi	mum: 30 Weightage	
Part A (Answer all questions)				
1. Protoplasts can be produced from callus by enzymatic treatment with				
a)	cellulolytic enzymes			
b)	pectolytic enzymes			
c)	both a and b			
d)	proteolytic enzymes			
2 is an excised piece of leaf or shoot used in micro propagation				
a)	micro shoot	b) explant		
c)	medium	d) callus		
3. Protoplast is the cell lacking				
4. Organogenesis is				
5. In a callus culture:				
a) increasing the level of cytokinin induce shoot formation				
b)	increasing the level of cytokinin in	nduce root formation	1	
c)	increasing the level of auxin induc	ce shoot formation		
d)	none of these			
6. The ability of a cell to produce the whole plant is called				
7. Autoclave is used for				
I. Vectors DNA is used for				
a. A chemical used for surface sterilization is				
10. Haploid c	cells contain set of chron	nosomes		
Expand the follo	owing			
11. MS medi	um			
12. ABA				
	Part B	C 11	$(12x^{1}/_{4} = 3 \text{ Weightage})$	
	(Write briefly on the	following)		

- 13. Callus
- 14. Protoplast fusion
- 15. Gibberellins

- 16. Stem cell
- 17. Synthetic seeds
- 18. Membrane filters
- 19. Animal cell culture media
- 20. Cell lines
- 21. Cell marker

(9 x 1 = 9 Weightage



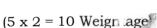
D)A

Part C

Write notes on any five of the following.

Answer not to exceed one page

- 22. Maintenance of sterile condition
- 23. Pollen culture
- 24. Explant selection
- 25. Somatic hybrids
- 26. Media formulation
- 27. Cell suspension culture
- 28. Indirect gene transfer



Part D

Write briefly on any two of the following

- 29. Stem cell culture and its applications
- 30. Somaclonal variation and its application in crop improvement
- 31. Basic lab requirements and applications of tissue culture

