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Learning Resource Acharya Institute & Te	CIII	Ulus	, ,			

CBCS SCHEME

18BT743

Seventh Semester B.E. Degree Examination, Feb./Mar. 2022 **Tissue Engineering**

Time: 3 hrs.

Max. Marks: 100

		N	ote: Answer any FIVE full questions, choosing ONE full question from each m	odule.
ice.			Module-1	
= 50, will be treated as malpractice.	1	a.	Give an account of the scope and importance of Tissue Engineering.	(06 Marks)
nalp	diai.		Viability assays are performed to determine Morphology of tissue - Explain.	(08 Marks)
as n		b. c.	How is Cell number determine in Tissue Engineering?	(06 Marks)
ted				
trea			OR	
pe	2	a.	With examples, explain how cells are used as Therapeutic agents.	(10 Marks)
Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be to		b.	State few characteristics of invitro tissue that could be used in therapies.	(10 Marks)
50,				
			Module-2	
12+8	3	a.	State applications of growth factors and explain any 1 of the growth factor in det	ail.
ρά 7				(10 Marks)
en		b.	Explain the sequence of wound healing process.	(10 Marks)
vritt			O.D.	
ns v			OR	(10 Marks)
atio	4	a.	With neat labeled diagrams, explain the types of tissue and its architecture.	(10 Marks)
edn		b.	Enumerate the types of cell – cell interactions.	(10 Marks)
evealing of identification, appeal to evaluator and /or equations written eg, 42+8			Module-3	
and	_		Biopolymers can be used in producing Biomaterials - Justify.	(10 Marks)
tor	5	a.	Explain the role of Nanotechnology to produce Biomaterials.	(10 Marks)
alua		b.	Explain the fole of ivanoteenhology to produce Biomaterials.	(======)
o ev			OR	
al to	6	a.	Discuss the properties of Biomaterials.	(10 Marks)
edd:	Ü	b.	State few applications of Biomaterials.	(10 Marks)
n, a		٠.		
atio			Module-4	
tific	7	a.	Describe Steam cells and its types.	(10 Marks)
den		b.	Explain Fluorescence activated cell sorting.	(10 Marks)
ofi				
ing			OR	
vea	8	a.	Stem cells are used in Therapies. Justify.	(10 Marks)
y re		b.	Discuss the applications of stem cell markers and cord blood cells.	(10 Marks)
Any re				
. 2.			Module-5	(40.3% 1.)
3	9	a.	Explain Invitro organogenesis.	(10 Marks)
2.		b.	Discuss Patent protection and regulation of tissue – engineered products.	(10 Marks)
J.			OR	(10 Marks)
4	10		Discuss the use of stem cells in Neurodegenerative diseases.	(10 Marks) (05 Marks)
		b.	Explain ethical issues in Tissue Engineered products.	(05 Marks)
		C.	Enumerate the process of preserving tissue models.	(US Mains)