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Librarian Learning Resource Centre Acharya Institutes	CBCS SCHEME	
USN		18BT743

Seventh Semester B.E. Degree Examination, July/August 2022 **Tissue Engineering**

Time: 3 hrs. Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

	IV	ote: Answer any FIVE juli questions, choosing ONE juli question from each mo	dule.	
		Madula 1		
1	a.	Module-1 Discuss the importance of tissue engineering in therapeutics.	(10 Marks)	
1	b.	Enumerate the methods to determine cell viability.	(10 Marks) (10 Marks)	
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		OR		
2	a.	Discuss the cell characteristics that needs to be monitored for invitro cell/tissue cu	ilture	
_	u.	Discuss the cent characteristics that needs to be monitored for mytho cent tissue et	(10 Marks)	
	b.	Elaborate the measurement of tissue characteristics.	(10 Marks)	
		Module-2		
3	a.	Classify the tissue based on their structure and functions.	(10 Marks)	
	b.	Vascular Endothelial Growth factor plays a vital role in angiogenesis. – Justify.	(10 Marks)	
			,	
		OR		
4	a.	Elaborate the cell-cell interaction mechanisms.	(10 Marks)	
	b.	Describe the process of wound healing with a neat labelled diagram.	(10 Marks)	
		Module-3		
5	a.	Define biomaterials. Discuss the properties that confirms a good biomaterial.	(10 Marks)	
	b.	Discuss the biopolymers that could be used as implants.	(10 Marks)	
		OR		
6	a.	Classify the biomaterials based on their material property.	(10 Marks)	
	b.	Discuss the role of nanotechnology in building new biomaterials.	(10 Marks)	
		Madula 4		
7	0	Module-4 Describe stem cells. Explain the types of stem cells.	(10 M1)	
1			(10 Marks)	
	υ.	Cells can be sorted by tagging fluorophores on them – uphold the statement.	(10 Marks)	
		OR		
8	a.	With a neat labelled diagram, delineate the sources of embryonic stem cells.	(10 Marks)	
Ü	b.	Describe the hematopoietic differentiation pathway.	(10 Marks)	
		2 control and non-more parameter par	(101111110)	
		Module-5		
9	a.	Describe invitro organogenesis.	(10 Marks)	
	b.	Discuss the treatment strategies for 3 rd degree burns.	(10 Marks)	
		OR		
10	a.	Explain the patent protection and regulation of tissue engineered products.	(10 Marks)	
	b.	Detail the process of preservation of cells/tissues.	(10 Marks)	

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