18ELD21

Second Semester M.Tech. Degree Examination, June/July 2019 Advanced Computer Architecture

Time: 3 hrs.

Max. Marks: 100

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

	1,	occiring or 2 juni questions, encoung or 2 juni question junior encount		
		Module-1		
1	a.	Explain Michael Flynn's classification.	(08 Marks)	
	b.	Explain Explicit parallelism and Implicit parallelism and Implicit parallelism.	(06 Marks)	
	c.	Explain Architecture of Vector super computer.	(06 Marks)	
OR /				
2	a.	Explain Data and Resource dependences.	(08 Marks)	
	b.	Differentiate control flow versus Data flow architecture.	(06 Marks)	
	C.	Explain Bernstein's conditions.	(06 Marks)	
		Module-2		
3	a.	Explain Mean performance of a multi mode computers.	(08 Marks)	
3	b.	Explain Efficiency, utilization and Quality.	(06 Marks)	
	c.	Explain Scalability metrics.	(06 Marks)	
	٠.	Explain bouldering metrics.	(001/241115)	
		OR OR		
4	a.	Explain Virtual Memory models.	(06 Marks)	
	b.	Give IBM/6000 Superscalar processor architecture.	(08 Marks)	
	c.	Explain Inclusion, Coherence and Locality.	(06 Marks)	
		Module-3		
5	0	Explain Direct Mapping cache organization.	(08 Marks)	
3	a. b.	Explain Sequential consistency model.	(06 Marks)	
	c.	Explain Interleaved memory organisation.	(06 Marks)	
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		OR		
6	a.	Explain Speed up, Efficiency and Throughput with respect to pipeline design.	(10 Marks)	
	b.	Explain Mechanism of Instruction pipelining.	(10 Marks)	
Module-4				
7	a.	Explain Vector processing principles.	(10 Marks)	
'	40.	Explain CM – 2 Architecture.	(10 Marks)	
	U.	Explain Civi - 2 Architecture.	(10 Marks)	
	OR			
8	a.	Explain Latency hiding technique.	(10 Marks)	
	b.	Explain the principle of Multithreading.	(10 Marks)	
Module-5				
9			(10 Marks)	
9	a. b.	Explain shared variable model. Explain Parallel Language Features for Parallelism.	(10 Marks)	
	U.	Explain Faranci Language Features for Faranciism.	(10 Marks)	
OR				
10	a.	Explain principles of Synchronization.	(10 Marks)	
	b.	Discuss shared variable program structures.	(10 Marks)	

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Important Note: 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.

2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.