APR-18/BE/Insem.-89

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BE-In Semester
B.E. Computer Engineering
HIGH PERFORMANCE COMPUTING
(2012 Pattern) (410450) (Semester – II)

Time: 1 Hours *Max Marks: 30*

Instructions to the candidates:

1. *Answer any three questions*
2. *Neat diagrams must be drawn whenever necessary*
3. *Assume suitable data if necessary*

Q1.	A]	Explain N wide Superscalar Architecture in detail	[4]
	B]	Explain Superscalar execution in terms of horizontal waste and vertical waste with example	[6]
		OR	
Q2.	A]	Explain following models : i. MIMD ii. SIMD	[6]
	B]	Explain Multi-Threaded Architecture in detail	[4]
Q3.	A]	Explain Memory Hierarchy and Thread Organization	[4]
	B]	Explain Interconnect, Memory Organization and Programming in details	[6]
		OR	
Q4.	A]	Explain Characteristics of Tasks	[5]
	B]	Wire a note on NVIDIA Tesla GPU	[5]
Q5.	A]	Draw and Explain topologies and embeddings	[6]
	B]	Illustrate MPI Routines	[4]
		OR	
Q6.	A]	Explain Sending and Receiving Messages using MPI	[6]
	B]	Write syntax and explain the following instruction i. MP_Barrier ii. MPI_Bcast	[4]

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