Code No.: CS8202PC | R20 | H.T.No. | | | 8 | R | | | | | |

CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
I–M.TECH–II–Semester End Examinations (Regular) - September- 2022
ADVANCED COMPUTER ARCHITECTURE
(CSE)

[Time: 3 Hours] **[Max. Marks: 70]**

Note: 1. Answer *any FIVE questions. Each question carries 14 marks.*
2. All questions carry equal marks.
3. Illustrate your answers with NEAT sketches wherever necessary.

5X14=70

1.	a)	Explain the Evolution of Computer Architecture.	[7M]
	b)	List and explain the Program Flow Mechanisms.	[7M]
2.	a)	Demonstrate the Evolution of Scalable Computers.	[7M]
	b)	Assess the Scalability Metrics and Goals.	[7M]
3.	a)	Give brief account of Shared Memory Organizations.	[7M]
	b)	Analyze Superscalar Vs Super pipeline Design.	[7M]
4.	a)	Evaluate the Snoopy Bus Protocols.	[7M]
	b)	Illustrate and Assess the CM-5 Network Architecture.	[7M]
5.	a)	Explain the Latency-Hiding Techniques.	[7M]
	b)	Compare scalable and multithreaded architectures.	[7M]
6.	a)	Briefly assess Multi-vector and SIMD Computers.	[7M]
	b)	Compare and Contrast Hardware vs Software parallelism.	[7M]
7.	a)	Outline Scalability of Parallel Algorithms.	[7M]
	b)	Explain Virtual Memory Technology.	[7M]
8.	a)	Explain arithmetic pipeline design.	[7M]
	b)	Develop Asynchronous and Synchronous Models of Linear Pipeline Processors.	[7M]

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