Mid Semester Examination

Name of the Program: B.Tech
Name of the Course: Advanced Computer Architecture

Semester: 7th
Course Code: TCS 704

Time: 1-1/2 Hour

Maximum Marks: 50

Note:

(i) Answer **all the questions** by choosing ***any one of the sub questions***.
(ii) Each question carries 10 marks

Q1	(10 marks)	**CO1**
(a)	Describe with a neat diagram different shared memory multiprocessor models.	
	OR	
(b)	What do you understand by control flow and data flow computers? State advantages and disadvantages of data flow computing?	
Q2		**CO1, CO2**
(a)	Discuss the Moore's Law and its scope?	
	OR	
(b)	Discuss Amdahl's law.Suppose we want to enhance the processor used for Web serving. The new processor is 20 times faster on computation in the Web serving application than the original processor. Assuming that the original processor is busy with computation 60% of the time and is waiting for I/O 40% of the time, what is the overall speedup gained or loss by incorporating the enhancement?	
Q3		**CO1, CO2**
(a)	List and explain four important technologies , which have led to the improvements in computer system.	
	OR	
(b)	Discuss which techniques are used to fast address translation	
Q4	(10 marks)	**CO2**
(a)	What is dependability? Explain two main measures of dependability	
	OR	
(b)	Discuss ten advanced optimization of Cache Performance. What are different causes cache inconsistencies?	
Q5	(10 marks)	**CO2**
(a)	Explain Coherence and locality properties with suitable example.	
	OR	
(b)	. Define- i)Computer Architecture ii)Hardware iii)organization iv)bandwidth v)latency/response time vi) feature size vii)dynamic power viii)static power ix)dynamic energy x) learning curve xi) change in yield	