Max. Marks: 50
Duration: 1 Hr. 45 Min.
Class: SYB.Tech   Semester: III
Name of the Course: Computer Organization and Architecture   Branch: Computers
Course Code: UCC303

Instructions:
(1)   All questions are compulsory
(2)   Draw neat diagrams
(3)   Assume suitable data if necessary

Question No.		Max Marks
Q 1(A)	Objective /MCQ	
Q1.1	Which of the following is not a hardware component of computer? A.Memory B.Scanner C.Software D.CPU	1 Mark
Q1.2	The branch of study that deals with the computer system's conceptual design and basic overview is known as A.Computer Anatomy B.Computer Architecture C.Computer OS D.Computer interface	1 Mark
Q1.3	Which of the following is not the form of registers? A.Accumulator B.General purpose register C.Special purpose register D.Cache	1 Mark
Q1.4	Which of the following Special purpose register holds the address of next instructions to be executed? A.Program Counter B.Instruction Register C.Stack pointer D.Base Register	1 Mark

Q1.5	A shared communication path consisting of one or more connection lines between registers is known as A.Transistor B.Integrated Circuits C.Bus D.Register Transfer	1 Mark
Q1.6	The unit needed to perform the logical micro-operation such as OR, AND, XOR, etc on individual pair of bits stored in registers is _____ A.Arithmetic Unit B.Control Unit C.Logic Unit D.All of the above	1 Mark
Q1.7	The important parameter in choosing a memory is A.Capacity B.Speed C.Bandwidth D.All of the above	1 Mark
Q1.8	The processing required for a single instruction is called A.instruction cycle B.processing cycle C.unary cycle D.data cycle	1 Mark
Q1.9	The I/O Devices are also known as A.Framework B.Peripherals C.Firmware D.Software	1 Mark
Q1.10	MIMD computer is called _____ if the degree of interactions among processors is high. A.uniform memory access B.non-uniform memory access C.dynamic memory access D.random memory access	1 Mark
Q1 (B)	Attempt any FIVE questions out of the following (any 5 out of 7)	10 Marks
Q1.1	Define Bus? List types of buses	2 Marks
Q1.2	What is difference between Paging & Segmentation.	2 Marks
Q1.3	What is the importance of IEEE-745 floating point representation?	2 Marks
Q1.4	Brief about Cache	2 Marks
Q1.5	Why is Virtual memory not real?	2 Marks
Q.1.6	Mention the Flynn's classification.	2 Marks
Q1.7	What are RAID Levels?	2 Marks
Q. 2	Solve using Non Restoring Division for M=15 , Q= 25 OR Solve Booths recoding for M= 19 and Q= 5	10 Marks
Q. 3	Draw a neat diagram and explain Micro programmed Control unit and its components	10 Marks
Q. 4	What are pipeline hazards? Explain the types with an example	10 Marks