Duration: 3hrs **Max Marks:80**

N.B. : (1) Question No 1 is Compulsory.
(2) Attempt any three questions out of the remaining five.
(3) All questions carry equal marks.
(4) Assume suitable data, if required and state it clearly.

1		Attempt any FOUR	[20]
	a	What does **ARM** stand for in technology?	5
	b	What are the steps involved in executing instructions in a microprocessor from memory?	5
	c	List the features of NXP89v51RD2.	5
	d	In what scenarios is secondary memory preferred over primary memory?	5
	e	If the value of TMOD register is 4CH then write status of timer use in 8051 microcontroller.	5
2	a	Differentiate between segmentation and paging in concern with the memory system.	[10]
	b	Write a program to add 0AH, 0BH data and store 8 bit result in memory location 10H and status of result in 11H memory location.	[10]
3	a	Display Character "A" serially using mode1 with baud rate 9600, using 8051 microcontroller. Draw format of SCON register.	[10]
	b	Explain following instruction of ARM7 1. MVN R0, 0x25H 2. SUB R0,R1,#0x12H	[10]
4	a	How do you choose the right microcontroller for a given application?	[10]
	b	Which register is used to access stack memory? Explain stack structure of 8051.	[10]
5	a	What is the size of registers in ARM7? Explain the register model of ARM7.	[10]
	b	Write a program to find a large number among 10 numbers using 8051 microcontroller.	[10]
6	a	Explain the internal and external memory architecture of the 8051 microcontroller	[10]
	b	Explain port0 and port3 structure of 8051 microcontroller.	[10]