

Comp. Organization & Arch.
(COA)
QP CODE : 750901

[Total Marks : 80]

(3 Hours)

- N.B. :** 1) Question No.1 is compulsory.
2) Attempt any three from the remaining five questions.
3) Draw suitable diagrams wherever required

Q.1	A	What is system bus. Explain with suitable diagram	05
	B	Explain Multicore computer organization	05
	C	Compare sequential circuits and combinational circuits	05
	D	Define flip-flop. Explain the working of J-K FF with logic diagram.	05
Q.2	A	Explain six stage instruction pipelining with suitable diagram	10
	B	Explain Program I/O , Interrupt I/O and DMA techniques	10
Q.3	A	Draw & Explain Flynn's classification of parallel processing	10
	B	Design a combinational logic circuit whose output is HIGH when input is >9. assume that input to the circuit is 4 bit binary A3A2A1A0.	10
Q.4	A	What is RAID? Explain any three levels with suitable diagrams	10
	B	Explain RISC & CISC architectures	10
Q.5	A	Explain in detail about the different superscalar instruction issue policies	10
	B	Explain SRAM and DRAM organizations with suitable diagrams	10
Q.6	Write short notes on (any four)		20
	A	4:1 MUX	
	B	Flash Memory	
	C	Register Organization	
	D	Functions of I/O module	
	E	Instruction formats	