Code No: MC1612/R16

MCA I Semester Regular/Supplementary Examinations, January-2018

COMPUTER ORGANIZATION

Time: 3 Hours **Max. Marks: 60**

Answer Any **FIVE** *Questions*
All Questions Carry Equal Marks

1.	a	Explain the impact of following on the performance of a computer i) Instruction set ii) Multiprocessors and multicomputer	6M
	b	Discuss various generations in development of technologies to fabricate processors, memories and I/O units.	6M
2.	a	Consider C=A+B, Explain different ways of writing this instruction with respect to number of addresses used.	6M
	b	Write about relative, absolute and auto increment/decrement addressing modes.	6M
3.	a	How to execute a program in assembly language? Explain step by step process.	6M
	b	What is subroutine? Explain about subroutine stack frame with an example.	6M
4.	a	Differentiate ARM post-indexed and pre-indexed memory addressing modes involving write back.	6M
	b	Perform various logical operations on the contents of two registers and store the result in another register.	6M
5.	a	Write about arbitration, selection operations on SCSI bus.	6M
	b	How to perform an input transfer using multiple clock cycles in synchronous bus.	6M
6.	a	Draw and explain a general 8-bit parallel interface circuit.	6M
	b	How to use DMA controller in a computer system. Explain in detail.	6M
7.	a	What is the importance of virtual memory? How it is different from other memories? Explain	6M
	b	Write about Manchester encoding, organization of disk and disk controller in detail.	6M
8.	a	Explain micro instruction sequencing organization with micro instruction address register.	6M
	b	Separate the functionalities of decoding and encoding in hard wired control.	6M

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