

Unit	BCA415: Computer Architecture
I	Register Transfer Language: Inter-register transfer; Parallel, Serial & Bus Transfer. Memory Transfer. Arithmetic, logic & shift micro-operations. Control Functions. Machine and Instruction cycles
II	I/O Architecture: I/O devices and their controllers: LED Display & Hex Keyboard. Peripheral Devices. I/O interface. Microprocessor Interface, Elementary concepts of Isolated IO and Memory mapped IO. Modes of Transfer: Asynchronous data transfer: strobe control, handshaking. DMA
III	CPU organization: Address, data & Control bus. Processor bus organization. ALU: Arithmetic and logic circuit. Stack organization. Instruction format and Addressing Modes.
IV	Microprogram control organization: control memory, Address sequencing: mapping of macro-operation, subroutines. Microprogram Example, microinstruction format. Microprogram sequencer.
V	Microprocessor system: Introduction to microcomputer system. Pins of 8085 microprocessor, Block diagram of 8085 microprocessor. Programming model of 8085. Assembly language structure of 8085.