National Institute of Technology Meghalaya

An Institute of National Importance

CURRICULUM

Programm											Year of Regulation				2019-20	
D	epartme	nt Co	omputer Se	cience and	l Enginee	ring			1			Semest	er			V
	urse			ſ	ourse Nar	ne				Credit	Structure	1		Marks	s Distributi	on
	ode				Surbe rial				L	Т	Р	С	INT	MID	END	Total
CS	311			licroproce					3	1	0	4	50	50	100	200
	Introduce students about the architecture, internal organization of an 8-bit (8085) processor in detail.							CO1				concept of digital fundamenta				
						an external	l device wit	th the	_		to microprocessor based personal computer system. Identify a detailed software & hardware structure of the					
Course Objectives			s/ controlle		8					CO2	8085 Microprocessor.					
		Introduce	students to	o programn	ning in ass	sembly lang	guage.			CO3				• •	erals (8255	, 8253 etc
		Course Course are interfaced with Microprocessors & Micropr										•		erent		
											•	• •				
		CO5 Analyse the data transfe								transfer	· informat	ion throug	h serial &			
		parallel ports.									•	ate asse	te assembly language programs and			
										CO6	the mad	chine code			solutions	
											problen	ns.				1 5 6 6
No.	COs	DO1	DO2	DO2	1				omes (POs)	DOO	DO10	DO11	DO10		Aapping wi	
$\frac{1}{1}$	CO1	PO1 3	PO2 1	PO3 1	PO4 1	PO5 0	PO6 0	PO7	PO8	PO9 0	PO10	PO11	PO12			-
1 2	CO1 CO2	3	1	1	0	1	0	0	0	0	0	0	1 0	1	2	2
2	C02 C03	3	3	3	2	3	0	0	0	0	0	0	0	1		3
3 4	C03	3	1	3	2	2	0	0	0	0	0	0	0	1		3
5	CO4	3	2	3	1	1	0	0	0	0	0	0	0	1		3
6	CO6	3	3	3	2	2	0	0	0	0	0	0	0	1		2
-								SYLLA	BUS							
1			upt handli	ing, Serial	& parall	el data tra	t output- p insfer sche	eme,						17		D1, CO2
·	Program Program	pt & interr mmed & ir mmable pe output using	upt handli nterrupt di pripheral d	ing, Serial riven data levices, Pi	& parall transfer, rogramma	el data tra Direct me	unsfer sche emory acce	eme, ess,						17		
I II	Program Program input-o	mmed & ir mmable pe	upt handlinterrupt di eripheral d g AD & D ssembly la	ing, Serial riven data levices, Pr DA conver inguage &	& parall transfer, rogramma ter	el data tra Direct me able interv	unsfer sche emory acce val timer, A e programme	eme, ess, Analog ming,						17	C(01, CO2 03, CO4
П	Program Program input-o Introduc Instruct Basic I	mmed & ir mmable pe butput using action to as tion set of interfacing	upt handlinterrupt di eripheral d g AD & D ssembly la typical m Concepts	ing, Serial riven data levices, Pr DA conver inguage & icroproces	& parall transfer, rogramma ter machine ssor (e.g.	el data tra Direct me able interv e language 8085), Su	e programr broutine &	eme, ess, Analog ming, & stack							C(03, CO4
	Program Program input-o Introdu Instruct Basic I 8255 P Program 8253/5 ADC	mmed & ir mmable pe output using action to as tion set of	upt handlinterrupt di eripheral d g AD & D ssembly la typical m Concepts ble Periph eyboard/D mable Tir	ing, Serial riven data levices, Pr DA conver inguage & icroproces	d & parall transfer, rogramma ter a machine ssor (e.g. face, Inte terface,	el data tra Direct me able interv e language 8085), Su	insfer sche emory acce val timer, A e programr ibroutine &	eme, ess, Analog ming, & stack							C(03, CO4
II	Program Program input-o Introdu Instruct Basic I 8255 P Program 8253/5 ADC And D 8086 In	mmed & ir mmable pe output using action to as tion set of interfacing rogramma mmable Ko 4 Program	upt handlinterrupt di eripheral d g AD & D ssembly la typical m Concepts ble Periph eyboard/D mable Tir cing.	ing, Serial riven data levices, Pr DA conver inguage & icroproces	face, Inte	el data tra Direct me able interv e language 8085), Su	insfer sche emory acce val timer, A e programr ibroutine &	eme, ess, Analog ming, & stack						10	C(03, CO4
11	Program Program input-o Introdu Instruct Basic I 8255 P Program 8253/5 ADC And D. 8086 Ir Memor	mmed & ir mmable pe output using action to as tion set of nterfacing rogramma mmable Ko 4 Program AC Interfa	upt handlinterrupt di eripheral d g AD & E ssembly la typical m Concepts ble Periph eyboard/E mable Tir cing. chitecture, tation, Ad	ing, Serial riven data levices, Pr DA conver inguage & icroproces , heral Inter Display Int mer, DMA	face, Inte terface, Control	el data tra Direct me able interv e language 8085), Su rfacing D ler, Interru	insfer sche emory acce val timer, A e programr ibroutine &	eme, ess, Analog ming, & stack						10	C(03, CO4
п	Program Program input-o Introdu Instruct Basic I 8255 P Program 8253/5 ADC And D. 8086 Ir Memor	mmed & ir mmable peoutput using action to as tion set of interfacing rogrammable Ko 4 Program AC Interfa nternal Arc ry Segmen	upt handlinterrupt di eripheral d g AD & E ssembly la typical m Concepts ble Periph eyboard/E mable Tir cing. chitecture, tation, Ad	ing, Serial riven data levices, Pr DA conver inguage & icroproces , heral Inter Display Int mer, DMA	face, Inte terface, Control	el data tra Direct me able interv e language 8085), Su rfacing D ler, Interru	isplay, Ke	eme, ess, Analog ming, & stack						10	C(03, CO4
	Program Program input-o Introdu Instruct Basic I 8255 P Program 8253/5 ADC And D. 8086 In Memor Basic F	mmed & ir mmable peoutput using action to as tion set of interfacing rogrammable Ko 4 Program AC Interfa nternal Arc ry Segmen	upt handlinterrupt di eripheral d g AD & E ssembly la typical m Concepts ble Periph eyboard/E mable Tir cing. chitecture, tation, Ad	ing, Serial riven data levices, Pr DA conver inguage & icroproces , heral Inter Display Int mer, DMA	face, Inte terface, Control	el data tra Direct me able interv e language 8085), Su rfacing D ler, Interru	isplay, Ke	eme, ess, Analog ming, & stack						10 15 06	C(03, CO4
II III IV Esser	Program Program input-o Introdu Instruct Basic I 8255 P Program 8253/5 ADC And D 8086 Ir Memor Basic F mtial Re	mmed & ir mmable peoutput using action to as tion set of nterfacing rogramma mmable Ke 4 Program AC Interfa nternal Arc ry Segmen Bus Timing eadings:	upt handlinterrupt di eripheral di g AD & D ssembly la typical m Concepts ble Peripheral mable Tir cing. chitecture, tation, Ad g During H	ing, Serial riven data levices, Pr DA conver inguage & icroproces , heral Inter Display Int mer, DMA	l & parall transfer, rogramma ter a machine ssor (e.g. face, Inte terface, A Controll Modes, Write Op	el data tra Direct me able interv e language 8085), Su rfacing D ler, Interru beration.	isplay, Ke upt Contro	eme, ess, Analog ming, & stack eyboard oller,		1., 2000, 1	Penram In	ternationa	ı.	10 15 06	C(03, CO4
II III IV Essei	Program Program input-o Introdu Instruct Basic I 8255 P Program 8253/5 ADC And D 8086 In Memor Basic I Basic I I Memor	mmed & ir mmable pe- butput using action to as tion set of interfacing Programma mmable Ko 4 Program AC Interfa nternal Arc ry Segmen Bus Timing eadings: S., "Micro	upt handlinterrupt di eripheral di g AD & D sembly la typical m Concepts ble Periph eyboard/D mable Tir cing. chitecture, tation, Ad g During H	ing, Serial riven data levices, Pr DA conver inguage & icroproces , heral Inter Display Int mer, DMA Idressing I Read And	a control face, Inter face, Inter face, Inter face, Control Modes, Write Op	el data tra Direct me able interv e language 8085), Su rfacing D ler, Interru beration. Total I	isplay, Ke upt Contro	eme, ess, Analog ming, & stack eyboard oller,	s, 8279		Penram In	ternationa	1.	10 15 06	C(03, CO4
II III IV Essei . Gae	Program Program input-o Introdu Instruct Basic I 8255 P Program 8253/5 ADC And D 8086 In Memor Basic I Basic I I mtial Re onkar R. uglas Ha	mmed & ir mmable pe- butput using action to as tion set of nterfacing Programma mmable Ko 4 Program AC Interfa nternal Arc ry Segmen Bus Timing eadings: S., "Microj ill And S S	upt handlinterrupt direrrupt direrrupt direrrupt direrrupt direrrupheral dig AD & D & D & D & D & D & D & D & D & D	ing, Serial riven data levices, Pr DA conver inguage & icroproces , heral Inter Display Int mer, DMA Idressing I Read And Architectur Microproc	a controll face, Inter face, Inter face, Inter face, Inter face, Controll Modes, Write Op	el data tra Direct me able interv e language 8085), Su rfacing D ler, Interru peration. Total I mming and Interfacing	e program ibroutine & isplay, Ke upt Contro Hours	eme, ess, Analog ming, & stack eyboard oller, oller, ons with 2012, Ta	s, 8279 8085", 5 th ed	Hill.		ternationa	1.	10 15 06	C(03, CO4
II III IV Essei . Gae 2. Do 3. Aja	Program Program input-o Introdu Instruct Basic I 8255 P Program 8253/5 ADC And D. 8086 Ir Memor Basic E ntial Re onkar R. uglas Ha	mmed & ir mmable pe- butput using action to as tion set of nterfacing Programma mmable Ko 4 Program AC Interfa nternal Arc ry Segmen Bus Timing eadings: S., "Microj ill And S S	upt handlinterrupt di eripheral di g AD & E sembly la typical m Concepts ble Periph eyboard/E mable Tir cing. chitecture, tation, Ad g During H processor A S P Rao, " rocessor 8	ing, Serial riven data levices, Pr DA conver inguage & icroproces , heral Inter Display Int mer, DMA Idressing I Read And Architectur Microproc	a controll face, Inter face, Inter face, Inter face, Inter face, Controll Modes, Write Op	el data tra Direct me able interv e language 8085), Su rfacing D ler, Interru peration. Total I mming and Interfacing	e program ibroutine & isplay, Ke upt Contro Hours	eme, ess, Analog ming, & stack eyboard oller, oller, ons with 2012, Ta	s, 8279 8085", 5 th ed tta McGraw-I	Hill.		ternationa		10 15 06	C(03, CO4
II III IV Essei Gao 2. Do 3. Aja Supp	Program Program input-o Introdu Instruct Basic I 8255 P Program 8253/5 ADC And D. 8086 Ir Memor Basic F ntial Re onkar R. uglas Ha ay wadhy Dementa	mmed & ir mmable pe- butput using action to as tion set of nterfacing Programma mmable Ko 4 Program AC Interfa nternal Arc ry Segmen Bus Timing eadings: S., "Microp all And S S wa,"microp ary Readi	upt handlinterrupt di eripheral di g AD & D sembly la typical m Concepts ble Periph eyboard/D mable Tir cing. chitecture, tation, Ad g During H processor A S P Rao, " rocessor 8 ngs:	ing, Serial riven data levices, Pr DA conver inguage & icroproces , heral Inter Display Int mer, DMA Idressing I Read And Architectur Microproc 085: archit	a controll face, Inter face, Inter face, Inter face, Inter face, Controll Modes, Write Op re, Program essor and facture, pr	el data tra Direct me able interv e language 8085), Su rfacing D ler, Interru peration. Total I nming and Interfacing ogrammin	e program ibroutine & isplay, Ke upt Contro Hours I Applicatio g", 3 rd ed., 2	eme, ess, Analog ming, & stack eyboard oller, oller, ons with 2012, Ta erfacing"	s, 8279 8085", 5 th ed tta McGraw-I	Hill.), PHI Le		ternationa	ı.	10 15 06	C(03, CO4