(a) 3 byte (b) 2 byte (c) 4 byte (d)1 byte 5. An Intel 8051 microcontroller has CO3- (a) 64 bytes internal RAM (b) 128 bytes internal RAM (c) 256 bytes internal RAM (d) 4K bytes internal RAM	A		Reg. No. :									
Fifth Semester Electrical and Electronics Engineering 15UEE503- Microprocessors and Microcontroller Programming (Regulation 2015) Duration: Three hours Maximum: 100 Mark PART A - (10 x 1 = 10 Marks) 1. An Intel 8085 microprocessor is having number of data CO1- (a) 8 (b) 16 (c) 32 (d) 64 2. CO2- (a) 320 ns (b) 640 ns (c) 960 (d) 1280 ns CO2- (a) 320 ns (b) 640 ns (c) 960 (d) 1280 ns CO2- (a) 320 ns (b) 640 ns (c) 960 (d) 1280 ns CO2- (a) Data transfer Instruction (b) arithmetic Instructions (c) Logical Instructions a	Question Paper Code: 55303											
Electrical and Electronics Engineering 15UEE503- Microprocessors and Microcontroller Programming (Regulation 2015) Duration: Three hours Maximum: 100 Marks Answer All Questions PART A - (10 x 1 = 10 Marks) 1. An Intel 8085 microprocessor is having number of data lines. (a) 8 (b) 16 (c) 32 (d) 64 C01- 10000000000000000000000000000000000	B.E./B.Tech. DEGREE EXAMINATION, APRIL 2019											
15UEE503- Microprocessors and Microcontroller Programming (Regulation 2015) Duration: Three hours Maximum: 100 Mark Answer All Questions PART A - (10 x 1 = 10 Marks) 1. An Intel 8085 microprocessor is having number of data CO1- lines. (a) 8 (b) 16 (c) 32 (d) 64 2. The 8085 microprocessor uses a crystal of frequency 6.25 Mhz. The T-state value is CO1- (a) 320 ns (b) 640 ns (c) 960 (d) 1280 ns 3. STAX B is a / an CO2- (a) Data transfer Instruction (b) arithmetic Instructions CO2- (a) Joby CO2- (a) 3 byte (b) 2 byte (c) 4 byte (d) 10 byte CO3- (a) 64 bytes internal RAM (b) 128 bytes internal RAM CO3- (d) 4 K bytes internal RAM (c) 256 bytes internal RAM (d) 4K bytes internal RAM CO3- (d) 4 K bytes internal RAM CO3-		Fifth Semester										
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6. The device that generates the basic timing clock signal for the operation of the CO3-		(a) 64 bytes internal	(b) 128 bytes internal RAM									
		(c) 256 bytes internal	RAM	(d) 4K	bytes	inter	mal I	RAM				
	6.	-	÷	clock sig	nal fo	r the	opei	ration of	of the		CC)3-F
(a) Timing unit (b) Timing and control unit		(a) Timing unit		(b) Tin	ning a	nd co	ontro	l unit				
(c) Oscillator (d) Clock generator		(c) Oscillator		(d) Clo	ck gei	nerat	or					

7.	Intel 8255, under the Hand shake I/O mode of operation, we have modes.							CO4-R		
	(a) I	Mode 0		(b) Mode	e 1	(c) Mode	e 2	(d) Mode	3	
8.		-	ag that increments automatically after each read or write on to the display RAM is					CO4-R		
	(a) I	F	(b) RF		(c) AI			(d) WD		
9.	Тое	exchange the cont	ent of A an	d R0 whic	ch instruct	ion used?			CO5-R	
	(a) XCH A, R0 (b) XCH A, @R0 (c) XCH R0, @A						(d) XCH @R0, A			
10.	The operations performed by data transfer instructions are on						CO5-R			
	(a) t	(a) bit data (b) byte data (c) 16 bit data						(d) all of the above		
			PAF	RT – B (5	x 2= 10 N	Iarks)				
11.	Write the use of ALE signal.							CO1- R		
12.	Analyze the purpose of the I/O instructions IN and OUT.						CO2- R			
13.	List the general purpose programmable registers of an Intel 8051 microcontroller.							CO3- R		
14.	What is an USART?						CO4- R			
15.	Write a program to find 2's complement using 8051.						CO5- R			
			P.	ART – C	(5 x 16= 8	80Marks)				
16.	(a)	Draw and ex microprocessor, ALE signal.	plain the also explai					CO1-U	(16)	
	(b)	Statah the Tim	ina diaana	Or	5	n for MOI		COLU	(16)	
	(b)	Sketch the Tim instruction.	ing diagrai	11 01 808	Sprocesso	or for MO	v A,D	C01-0	(16)	
17.	(a)	Define address examples of eac	e		classifica	ations. Giv	ve the	CO2-Ana	(16)	
	(b)	Write an algorithe hexadecimal nu array using 8085	mbers stor	ssembly ed in cor				CO2- C	(16)	

18.	(a)	Explain the memory structure of an Intel 8051 microcontroller. Or	CO3- Ana	(16)
	(b)	Explain the interrupt structure of 8051 microcontroller and also explain how interrupts are prioritized.	CO3- Ana	(16)
19.	(a)	(i) With a neat block diagram explain the function of 8255 PPI.	CO4-U	(12)
		(ii) Show the control word format of 8255 and explain how each bit is programmed.	CO4-U	(4)
		Or		
	(b)	With neat sketch explain the operation of Intel 8259 PIC.	CO4-Ana	(16)
20.	(a)	Write an 8051 assembly language program to subtract two numbers of 8 bit data stored in memory location 4200H and to 4201H. Store the difference in 4203H and sign in 4204H. Or	CO5-U	(16)
	(b)	With a neat circuit diagram explain how a 4 x 4 keypad and	CO5-U	(16)

seven segment display is interfaced with 8051 microcontroller.