Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V (NEW) - EXAMINATION - SUMMER 2017

Subject Code: 2152006		Date: 03/05/2017		
•	:30 P	e: BASICS OF MICRO COMPUTER SYSTEMS PM to 05:00 PM	Total	Marks: 70
1. 2.	Atten Make	npt all questions. e suitable assumptions wherever necessary. res to the right indicate full marks.		
3.	rigui	es to the right indicate run marks.]	MARKS
Q.1	1	Short Questions Accumulator based microprocessor example are: (a) Intel 8085 (b) Motorola 6809 (c) A&B (d) none of these.		14
	2	Which is used to store critical pieces of data of subroutines and interrupts: (a) stack (b) queue (c) accumulator (d) data register	luring	
	3	EU stands for: (a)Execute unit (b) Exchange Unit (c)Execution Unit (d) None of Above		
	4	INTR: Interrupt implies thesignal (a)Interrupt Request (b)Interrupt Right (c)interrupt Rongh (d)Interrupt Reset		
	5	In Micro Processor one of the Operands Hold a Space Register Called: (a) calculator (b) dedicated (c) Accumulator (d)	-	
	6	The Status register is also called the: (a)Condition Code Register (b)Flag Register (c) A&B (d)None of These		
	7	Which STACK is Used in 8085: (a) FIFO (b) LIFO (c) FILO (d) None Of these	;	
	8	Internal RAM memory of the 8051 is: (a) 32 byte (b) 64 byte (c) 128 (d) 256 byte		
	9	The 8051 can handle interrupt sources. (a) 5 (b) 4 (c) 3 (d) 6		
	10	The I/O ports that are used as address and data for ex memory are:		
	11	(a) Port 1&2 (b) Port 1&3 (c) Port 0&3 (d) Port 0&2 The start-conversion on the ADC0804 is done by using to a sc (b) cs line (c) INTR line (d) all		
	12	An alternate function of port pin P3.0(RXD) in 8051 is: (a) serial port input (b) serial port of (c)memory write strobe (d) memory read strobe	output	
	13	The ADC0804 has resolution (a) 4-bit (b) 8-bit (c) 16-bit (d) 32-bit	•	

	14	A high on which pin resets the 8051 microcontroller? (a) RESET (b) RST (c) PSEN (d) RSET	
Q.2	(a)	Define: instruction cycle, machine cycle and T-state.	03
	(b)	Compare instruction: SUB A and MVI A,00H.	04
	(c)	Using diagram illustrate logic pin out of the 8085 microprocessor.	07
		OR	
	(c)	Explain the 8085 bus structure	07
Q.3	(a)	List various vectored interrupt in the microprocessor 8085 and explain ant one of them.	03
	(b)	Differentiate between microprocessor and microcontroller.	04
	(c)	What is arithmetic operation? Explain any six instruction of	07
	(C)	arithmetic operation in 8085.	07
		OR	
Q.3 (a)	(a)	What is stack? Explain instruction to initialize the stack	03
C	()	location in the microprocessor 8085.	
	(b)	Define and explain op-code and operand	04
	(c)	Draw and explain timing diagram for out instruction.	07
Q.4	(a)	Explain any byte level logical instrument.	03
((b)	Explain time delay for 8051 microcontroller.	04
	(c)	What is addressing mode? Explain any three of them.	07
		OR	
Q.4	(a)	Explain any arithmetic instruction.	03
	(b)	What is jump range? For the microcontroller 8051, explain	04
		absolute, long absolute and relative jump using instruction.	
	(c)	Explain structure of port 0 in the microcontroller 8051 using	07
		suitable diagrams.	
Q.5	(a)	Explain PUSH and POP instruction.	03
	(b)	Explain following terms: (a) SWAP A. (b) RLC A.	04
	(c)	Explain TCON and TMOD register with its bit pattern.	07
		OR	
Q.5	(a)	Explain IE register in the microcontroller 8051.	03
	(b)	Explain the interrupt structure of 8051.	04
	(c)	Program to convert 8-bit binary number to its equivalent	07

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