Seat No.:	Enrolment No.
Seat 110	Linoinent No

Subject Code:X60902

Subject Name:Microcontroller and Interfacing

GUJARAT TECHNOLOGICAL UNIVERSITY

PDDC - SEMESTER-VI. EXAMINATION - SUMMER 2016

Date:13/05/2016

	ime:10:30 AM TO 01:00 PM Total Mar structions:		ks: 70
mstrt		Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a)	Draw and explain any one port pin configuration with internal diagram of 8051 microcontroller.	07
	(b)	Write an assembly language program to generate 1 sec delay using 8051 Microcontroller	07
Q.2	(a) (b)	Enumerate and explain two addressing mode with one example of each. How 8051 microcontroller can be used as a Pulse Width Modulator (PWM)?	07 07
		OR	
	(b)	Draw and explain diagram of interfacing of ADC and 8051.	07
Q.3	(a)	Explain following instruction i) MOVX ii) XCH	07
		iii) PUSH	
	(b)	iv) CJNE Explain specific features of 8051 architecture. OR	07
Q.3	(a)	Explain IE along with each function of each bit	07
	(b)	Explain Internal RAM organization of 8051.	07
Q.4	(a)	Explain timer mode 0 and mode 1.	07
.	(b)	Explain SCON along with each function of each bit OR	07
Q.4	(a)	Explain Serial data mode 1 and mode 0	07
Q.4	(b)	Explain TCON along with each function of each bit	07
Q.5	(a)	Why timer can be run by using external start button? Giver your answer with necessary diagram.	07
	(b)	Increment contents of RAM locations 12h, 13h and 14h using indirect addressing and store the result of addition of content of three memory location at 15h inwards. Assume necessary data. OR	07
Q.5	(a)	List the different types of ranges of JUMP instruction. Explain any one range with two examples.	07
	(b)	Find the largest number among the 10 memory location starting at 00h memory location. Store largest number in accumulator.	07
