Seat No.:	Enrolment No.

Subject Code: 151001

GUJARAT TECHNOLOGICAL UNIVERSITY

Date: 15/12/2015

BE - SEMESTER-V EXAMINATION - WINTER 2015

Subject Name: Microcontroller & Interfacing			
Tir	ne: 1	0:30am to 1:00pm Total Marks: 70	
Inst	3.		
Q.1	(a) (b)	Differentiate Microprocessor and Microcontroller Explain the Structure of Port 1 of 8051. Explain Read Modify Write Feature of 8051.	07 07
Q.2	(a) (b)	Draw neat block diagram and pin diagram of 8051 Explain the Internal Structure of RAM OR	07 07
	(b)	Explain (1) \overline{EA} (2) \overline{PSEN}	07
Q.3	(a) (b)	Explain the Timer Mode 1 and Mode 3 in detail Explain the Serial Communication Mode 1. OR	07 07
Q.3	(a) (b)	Write a Program to Generate delay of 20 msec in 8051. Explain (1) PSW (2) TMOD (3) IE SFR's	07 07
Q.4	(a)(b)	Interface a Matrix Keyboard with 8051 and draw the flow chart to detect a switch pressing. Interface Two seven segment displays with 8051 and WAP to display 25 on that.	07 07
		OR	
Q.4	(a)	Explain the RESET pin of 8051. Explain Power ON and Manual RESET circuit.	07
	(b)	Interface an LCD with 8051 and Display "SMART" on the first line and "CITY" on the second line of the LCD.	07
Q.5	(a) (b)	Explain 8 bit ADC and Explain interfacing of same with 8051. Draw Internal Structures of PORT 0 and PORT 2 OR	07 07
Q.5	(a)	Interface a stepper motor and WAP to rotate it clockwise and anticlockwise after every 1 minute.	07
	(b)	Write a note on Addressing Modes of 8051.	07
