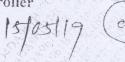
10 t 10 T

Paper / Subject Code: 32502 / Applications of Microcontroller
TE (2) (choice Based), Fishy. 6199, 15/05/





3 Hours

[Total Marks: 80]

	N. V. W. W. V.
N.B. (1) Question no 1 is compulsory.	
(2) Attempt any three questions out of remaining five questions.	
(3) Assume suitable data if necessary.	
(4) Figure to the right indicates full marks.	
Q. 1 Answer the following questions. (Attempt any FIVE)	20
a) Explain bit addressable memory of 8051.	
b) Give the function of following Instruction-	
i) CJNE A, #45H,12H, ii) MOVC <u>A, @A+DPTR</u> .	
c) Differentiate between timer and counter operation of 8051.	
d) Explain the Difference between Microprocessor and Microcontroller.	
e) Interface LED to 8051 microcontroller. Write a program to toggle LED.	
f) Explain Power Saving and Power Down mode.	
Q. 2 a) Draw and explain the Architecture of 8051 microcontroller	10
b) What is Embedded system? Explain the design metrics of Embedded system.	10
Q. 3 a) Write an assembly language program to convert two ASCII numbers into packed BCD Number.	4.0
b) Explain the addressing mode of 8051 microcontroller with example.	10
metocontroller with example.	10
Q. 4 a) Write a program to transmit message "INSTRUMENTATION" serially at 9600 baud rate.	
	10
b) Draw and Explain the interface of LCD. Write a program to display "Good Morning" on this display.	
Good Worling on this display.	10
Q.5 a) Interface 7 Segment Display with 8051 and write a program to display 0-9 count	er with
predetermined delay.	10
b) Interface DAC with 8051 microcontroller and write a program to generate square	wave
continuously.	10
Q.6 a) Explain the automatic washing machine system by using 8051 microcontroller.	10
b) Explain the interrupt structure of 8051 microcontroller in details.	10
de la	10