SRI KRISHNA INSTITUTE OF TECHNOLOGY

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#57, Chimney Hills, Hesaraghatta Main Road, Chikkabanavara Post, Bengaluru- 560090

DEPARTMENT OF EE-VLSI DESIGN & TECHNOLOGY

Subject Name: Microcontroller   **Subject Code: BVL405A**

SEM : IV   **DIV : A**   **Issue date :**

Faculty : Shwetha R   **Submission date:**

Assignment-1
Module-1

SL. No	Question	CO	Level	Marks
1.	With a neat diagram explain the internal memory structure and programming model of 8051 of microcontroller.	1	L2	8
2.	Distinguish between a) microprocessor and microcontroller	1	L2	5
3.	Bring out the difference between a) microprocessor and microcontroller	1	L2	5
4.	Explain the architectural block diagram of the 8051 Microcontroller.	1	L1	8
5.	Bring out the difference between a) RISC and CISC processor	1	L2	5
6.	Define microcontroller and List silent features of 8051.	1	L2	8
7.	With function of each pin explain the pin layout of 8051 of microcontroller	1	L2	8
8.	Distinguish between Harvard and Princeton architectures	1	L2	5
9.	Explain the significance of processor status word. Briefly discuss PSW register of 8051.	1	L2	8
10.	Explain the External Memory interfacing of 8051 Microcontroller with diagram.	1	L2	8
11.	Explain the Need of External Memory Interfacing in 8051 Microcontroller	1	L2	8

Module-2

SL. No	Question	CO	Level	Marks
1.	Explain addressing modes with examples.	2	L2	8
2.	With neat diagram explain byte jump instruction.	2	L2	10
3.	Explain the instruction syntax of 8051 microcontroller.	2	L1	8
4.	Explain the arithmetic instructions of 8051 with example	2	L2	8
5.	Explain Rotate and Swap instructions with example	2	L2	8

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6.	Write an alp to perform addition and subtraction. (Lab programs)	2	L3	8
7.	Define assembler directives. With example explain all the assembler directivessupported by 8051 microcontrollers.	2	L2	8
8.	Explain the Logical instructions of 8051 with example	2	L2	8

Module-3

SL. No	Question	CO	Level	Marks
1.	Explain the structure of TMOD register.	3	L2	5
2.	Explain 8051 timers with neat diagram.	3	L2	5
3.	Explain simplex, half duplex and full duplex in serial communication	3	L2	5
4.	Difference between Asynchronous and synchronous serial communication	3	L2	5
5.	Explain the structure of TCON register.	3	L2	5

Faculty Signature