

SRI VASAVI ENGINEERING COLLEGE (Autonomous)
B.Tech V Semester Regular Examinations – November-2020

Microprocessors & Microcontrollers
(Electronics and Communication Engineering)

Time: 3 Hrs

Max. Marks: 60

Answer All the Questions
All Questions Carry Equal Marks

1.				10 M
	A.	i.	Discuss with neat diagram of the internal architecture of 8086 family of microprocessors	CO1-K2(6M)
		ii.	Explain about the Flag Register available in 8086 architecture.	CO1-K2(4M)
			OR	
	B.	i.	Describe the minimum mode pin diagram and explain the function of each pin in detail.	CO1-K2(6M)
		ii.	Explain the different segments registers in 8086? What is need of memory segmentation?	CO1-K2(4M)
2.				10 M
	A.	i.	Explain different addressing modes of 8086 with an example.	CO2-K2(4M)
		ii.	Develop an assembly language program to the largest number in 8-bit array.	CO2-K3(6M)
			OR	
	B.	i.	Explain the any 2 groups of instructions in 8086.	CO2-K2(4M)
		ii.	Develop an assembly language program to the factorial of given number.	CO2-K3(6M)
3.				10 M
	A.	i.	Discuss the advantage of DMA controlled data transfer over interrupt driven or program controlled data transfer? Why are DMA controlled data transfers faster?	CO2-K2(10M)
			OR	
	B.	i.	Explain the internal architecture of 8259 PIC and explain its blocks.	CO2-K2(10M)
4.				10 M
	A.	i.	Sketch the pin diagram of 8051 microcontroller and explain the pins operation.	CO4-K3(5M)
		ii.	Explain the instruction set of 8051 microcontroller.	CO4-K2(5M)
			OR	
	B.	i.	Develop assembly language program using 3 or more addressing modes.	CO4-K3(5M)
		ii.	Explain the operation of port3 in 8051.	CO4-K2(5M)
5.				10 M
	A.	i.	Discuss the need of timers in PIC microcontroller?	CO5-K2(4M)
		ii.	Explain the features of PIC16 series.	CO5-K2(6M)
			OR	
	B.	i.	Describe the parallel I/O ports available in PIC.	CO5-K2(4M)

		ii.	Explain about Integrated operational circuits in PIC.	CO5-K2(6M)
6.				10 M
	A.	i.	Explain the Architecture of ATmega 328 controller.	CO6-K2(6M)
		ii.	Describe the various boards available in arduino?	CO6-K2(4M)
			OR	
	B.	i.	Explain about various variables and data types in ATmega328.	CO6-K2(6M)
		ii.	Interpret the uses of analog pins available in ATmega328.	CO6-K2(4M)
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