Register No : _____

THE KAVERY ENGINEERING COLLEGE

(An Autonomous Institution)

B.E/B.TECH DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL-MAY 2025

Fourth Semester

Electrical and Electronics Engineering

EE3404 – Microprocessor and Microcontroller

Regulations - 2021

Duration : 3 Hrs ***Maximum : 100 Marks***

PART – A (ANSWER ALL QUESTIONS) (Marks 10*2=20)

Q.No	*Questions*	*BLT*	*CO*	*Marks*
1.	Define Opcode fetch.	L1	1	2
2.	Calculate the T states required to execute LHLD 6000H instruction.	L2	1	2
3.	Classify the instruction of 8085 based on size.	L1	2	2
4.	What is the function of DAD B instruction?	L1	2	2
5.	Compare timer and counter.	L2	3	2
6.	Draw the control word format of 8259 Programmable interrupt controller.	L1	3	2
7.	What is IDE?	L1	4	2
8.	Draw the instruction format of 8051 Microcontroller.	L1	4	2
9.	Define RISC processor.	L1	5	2
10.	Mention the addressing modes of PIC Microcontroller.	L1	5	2

PART – B (ANSWER ALL QUESTIONS) (Marks 5*16 = 80)

Q.No			*Questions*	*BLT*	*CO*	*Marks*
11.	a		Explain the block diagram of 8085 Microprocessor with neat sketch.	L2	1	16
			Or			
	b	i	Write a short note on memory interfacing.	L2	1	8
		ii	Draw the timing diagram for STA 4500H instruction.	L2	1	8
12.	a		Illustrate the instruction set of 8085 with suitable example.	L3	2	16
			Or			
	b	i	Write an ALP to sort the given numbers in descending order.	L3	2	8
		ii	Discuss about the stack and subroutine with an example.	L3	2	8

13.	a		Enumerate the modes of operation of 8255 PPI in detail.	L4	3	16
			Or			
	b		Describe the architecture of 8251 USART with neat sketch.	L4	3	16
14.	a		Explain the functional block diagram of 8051 Microcontroller.	L2	4	16
			Or			
	b	i	Discuss about the keyboard and display interfacing with 8051.	L2	4	8
		ii	Write a short note on stepper motor control using 8051.	L2	4	8
15.	a		Draw and explain about the PIC Microcontroller architecture in detail.	L2	5	16
			Or			
	b	i	Explain the instruction set of PIC Microcontroller with suitable example.	L2	5	8
		ii	Write a short note on timer of PIC Microcontroller.	L2	5	8