Reg. No.												

Question Paper Code	11565

B.E. / B.Tech. - DEGREE EXAMINATIONS, NOV/DEC 2022

Sixth Semester

Electronics and Communication Engineering

EC8691 - MICROPROCESSORS AND MICROCONTROLLERS

(Regulations 2017)

Duration: 3 Hours | Max. Marks: 100

PART - A (10 × 2 = 20 Marks)

Answer ALL Questions

		Marks, K-Level, CO
1.	List the flags available in 8086.	2,K1,CO1
2.	Express how physical address is generated in 8086.	2,K2,CO1
3.	List the different types of I/O Programming.	2,K1,CO2
4.	Compare 8086 with advanced processors.	2,K2,CO2
5.	Write the various modes of 8254 timer.	2,K1,CO3
6.	Define key de-bouncing.	2,K1,CO3
7.	What is meant by PSW in 8051?	2,K1,CO4
8.	Why pull up resistor has to be externally interfaced with port 0?	2,K2,CO4
9.	Give the different modes of serial communication.	2,K1,CO5
10.	Infer SOC and EOC signal in A/D converter.	2,K2,CO5

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

11.	a)	Explain the Internal Architecture of 8086 with neat diagram.	13,K2,CO1
		OR	
	b)	Illustrate various addressing modes of 8086 with examples.	13,K2,CO1
12.	a)	Discuss in detail the pin configuration or signals of 8086.	13,K2,CO2
		OR	
	b)	Write a brief note on 8086 based loosely coupled system configuration.	13,K2,CO2
13.	a)	Draw the block diagram 8255 Programmable Peripheral Interface and explain its Operating modes.	13,K2,CO3
		OR	

b) Explain how serial communication can be established in 8086 using 8251 IC. *13,K2,CO3*

14. a) Discuss in detail the memory organization of 8051 microcontroller. *13,K2,CO4*

OR

b) Explain in detail about the SFR's in 8051. *13,K2,CO4*

15. a) (i) Illustrate the TMOD function register and its timer modes of operations. *7,K2,CO5*

(ii) Compare and contrast the IE and IP register in 8051. *6,K2,CO5*

OR

b) Give short notes on

(i) Sensor Interface *7,K2,CO5*

(ii) DAC Interface *6,K2,CO5*

PART - C (1 × 15 = 15 Marks)

16. a) Describe the basic operation of a stepper motor and also discuss how to interface a stepper motor to 8051 *15,K3,CO6*

OR

b) Draw and explain traffic light control system using 8086. *15,K3,CO6*