Reg. No. : | | | | | | | | | | |

Question Paper Code: 95804

B.E./B.Tech. DEGREE EXAMINATION, NOV 2024

Fifth Semester

Information technology

19UIT504– Microprocessor based system Design

(Regulation 2019)

Duration: Three hours | Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1.	What is operation carried out when 8086 executes the instruction MOV SB?	CO1- U	
2.	How is the stack top address calculated?	CO3-Ana	
3.	How is the physical address calculated? Give an example.	CO3-Ana	
4.	Draw the format of 8086 flag register	CO1- U	
5.	What are the functions performed by 8251?	CO1- U	
6.	What are the different types of serial communication?	CO1- U	
7.	Why oscillator circuit is used?	CO3-Ana	
8.	MOV R4, R7 is invalid. Why?	CO3-Ana	
9.	Mention the features of serial port in mode 0.	CO1- U	
10.	Compare polling and interrupt.	CO3-Ana	

PART – B (5 x 16= 80 Marks)

11.	(a)	Write an assembly language program in 8086 to Addition & subtraction using two 16 bit number.	CO1- U	(16)
		Or		
	(b)	Write an assembly language program in 8086 to search the largest& smallest data in the array.	CO1- U	(16)
12.	(a)	Compare the input and output timing diagram of maximum mode of operation in8086	CO3- Ana	(16)
		Or		

	(b)	Compare closely coupled configuration with loosely coupled configuration	CO3- Ana	(16)
13.	(a)	Implement DMA controller using 8257.	CO2- App	(16)
		Or		
	(b)	Implement the various operating modes of 8253 timer with necessary example.	CO2- App	(16)
14.	(a)	With the necessary diagram of control word format, explain the various operating modes of timer in 8051microcontroller.	CO2- App	(16)
		Or		
	(b)	With neat sketch explain the architecture/ functional block diagram of 8051 microcontroller	CO2- App	(16)
15.	(a)	Discuss about the organization of Internal RAM and Special function registers of 8051 Microcontroller in detail.	CO2- App	(16)
		Or		
	(b)	Explain the arithmetic and control instructions of 8051microcontroller	CO2- App	(16)