|--|



# **PRESIDENCY UNIVERSITY**

#### **BENGALURU**

#### **End - Term Examinations - MAY 2025**

School: SOE	Program: B. Tech - EEE		
Course Code: EEE2005	Course Name: Microprocessors and Microcontrollers		
Semester: IV	Max Marks: 100	Weightage: 50%	

CO - Levels	CO1	CO2	CO3	<b>CO4</b>	CO5
Marks	24	26	24	26	

#### **Instructions:**

- (i) Read all questions carefully and answer accordingly.
- (ii) Do not write anything on the question paper other than roll number.

#### Part A

### Answer ALL the Questions. Each question carries 2marks.

10Q x 2M=20M

1.	List the functions of the Program Counter (PC) in 8051 microcontrollers	2 Marks	L1	CO1
2.	Recall the following terms used for the Microprocessors  a) BYTE b) NIBBLE	2 Marks	L1	<b>CO1</b>
3.	State the purpose of the following instructions in 8051microcontroller  a) CJNE A, Direct address, Relative address b) ANL A, @Rn	2 Marks	L1	CO2
4.	List out the various types of addressing modes of 8051microcontroller	2 Marks	L1	CO2
5.	Identify the addressing mode used for the following instructions  a) MOV @R0, A  b) MOVX A, @A+DPTR	2 Marks	L1	CO2
6.	Recall the instructions used to start and stop the timer operations	2 Marks	L1	CO3
7.	How 16 bits timer registers are accessed by 8 bit 8051 microcontroller.	2 Marks	L1	CO3

8.	List the two methods of data transfer used in computers	2 Marks	L1	CO4
9.	List the differences between interrupts and polling	2 Marks	L1	CO4
10.	Recall the role of RTS and CTS pins of RS232 DB-9	2 Marks	L1	CO4

## Part B

	Answer the Questions.			Total Marks 80M				
11.	a.	With neat sketch, explain the internal RAM structure of 8051	10 Marks	L2	CO1			
		microcontroller.						
	b.	The Program Status Word (PSW) in the 8051-microcontroller	10 Marks	L2	CO1			
		architecture is a special-purpose register that indicates the						
		current state of the CPU and includes various flags that reflect						
		the results of arithmetic and logical operations. With a neat						
		sketch explains the Program Status Word (PSW) register in 8051						
		Microcontroller.						
		0r						
12.	a.	Microcontrollers are mainly used in small-scale applications like	10 Marks	L2	CO1			
		washing machines, cameras, security alarms, and keyboard						
		controllers. Conversely, microprocessors are employed in						
		personal computers, complex industrial controllers, traffic						
		lights, defense systems, and other larger-scale systems. Explain						
		the difference between Microprocessors and Microcontrollers						
	b.	Show the status of stack and stack pointer after the following	10 Marks	L2	CO1			
		instructions. Assume the default stack area.	20110110		301			
	moti actions. Assume the actaut stack at ca.							
		MOV R6, #25H						
		MOV R1, #12H						
		MOV R4, #0F3H						
		PUSH 6 PUSH 1						
		PUSH 4						
1 0011 1								
13.	a.	Explain with sketches the rotational instructions used in 8051	10 Marks	L2	CO2			
		Microcontroller.						
	1		40.14	1.0	602			
	b.	Illustrate with example, the program that finds the number of	10 Marks	L3	CO2			
		'1's in each byte						
	Or							
14.	a.	Assume that register A has packed BCD, illustrate a program to	10 Marks	L3	CO2			
		convert packed BCD to two ASCII numbers and place them in R2						
		and R6						

square wave of 50 kHz frequency on pin P2.3 select timer 1- and 16-bit timer mode.  Or  16. a. Summarize the characteristics and operations of mode1 programming of Timer in 8051 microcontrollers.  b. Assume that XTAL = 22 MHz, write a program to generate a square wave of 2 kHz frequency on pin P1.5.  17. a. Explain the functions and significance of the SBUF and SCON registers in facilitating serial communication in the 8051 microcontrollers. Explain how these registers are utilized in both transmitting and receiving data serially.  b. Illustrate an assembly language program for the 8051 to transfer "ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display continuously  Or		b.	Interpret the status of A, B, R0, R1, R2, R3 and address location	10 Marks	L2	CO2
MOV R1, #21H MOV R2, #87H MOV R3, #56H MOV R3, #56H MOV B, R2 MUL AB MOV 30H, A END  15. a. Explain the 8051 TMOD Register with necessary diagram and mention the purpose of TMOD register  b. Assume XTAL = 11.0592 MHz, write a program to generate a square wave of 50 kHz frequency on pin P2.3 select timer 1- and 16-bit timer mode.  16. a. Summarize the characteristics and operations of model programming of Timer in 8051 microcontrollers.  b. Assume that XTAL = 22 MHz, write a program to generate a square wave of 2 kHz frequency on pin P1.5.  17. a. Explain the functions and significance of the SBUF and SCON registers in facilitating serial communication in the 8051 microcontrollers. Explain how these registers are utilized in both transmitting and receiving data serially.  b. Illustrate an assembly language program for the 8051 to transfer "ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display continuously  Or  18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L2 CO3 4			30H after the execution of the below program.			
MOV R2, #87H MOV R3, #56H MOV A, R0 MOV B, R2 MUL AB MOV 30H, A END  15. a. Explain the 8051 TMOD Register with necessary diagram and mention the purpose of TMOD register  b. Assume XTAL = 11.0592 MHz, write a program to generate a square wave of 50 kHz frequency on pin P2.3 select timer 1- and 16-bit timer mode.  Or  16. a. Summarize the characteristics and operations of model programming of Timer in 8051 microcontrollers.  b. Assume that XTAL = 22 MHz, write a program to generate a square wave of 2 kHz frequency on pin P1.5.  17. a. Explain the functions and significance of the SBUF and SCON registers in facilitating serial communication in the 8051 microcontrollers. Explain how these registers are utilized in both transmitting and receiving data serially.  b. Illustrate an assembly language program for the 8051 to transfer "ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display continuously continuously  Or  18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L2 C0 4			MOV R0, #43H			
MOV R3, #56H MOV A, R0 MOV B, R2 MUL AB MOV 30H, A END  15. a. Explain the 8051 TMOD Register with necessary diagram and mention the purpose of TMOD register  b. Assume XTAL = 11.0592 MHz, write a program to generate a square wave of 50 kHz frequency on pin P2.3 select timer 1- and 16-bit timer mode.  Or  16. a. Summarize the characteristics and operations of model programming of Timer in 8051 microcontrollers.  b. Assume that XTAL = 22 MHz, write a program to generate a square wave of 2 kHz frequency on pin P1.5.  17. a. Explain the functions and significance of the SBUF and SCON registers in facilitating serial communication in the 8051 microcontrollers. Explain how these registers are utilized in both transmitting and receiving data serially.  b. Illustrate an assembly language program for the 8051 to transfer "ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display continuously  Or  18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L2 CO			MOV R1, #21H			
MOV A, R0 MOV B, R2 MUL AB MOV 30H, A END  15. a. Explain the 8051 TMOD Register with necessary diagram and mention the purpose of TMOD register  b. Assume XTAL = 11.0592 MHz, write a program to generate a square wave of 50 kHz frequency on pin P2.3 select timer 1- and 16-bit timer mode.  Or  16. a. Summarize the characteristics and operations of model programming of Timer in 8051 microcontrollers.  b. Assume that XTAL = 22 MHz, write a program to generate a square wave of 2 kHz frequency on pin P1.5.  17. a. Explain the functions and significance of the SBUF and SCON registers in facilitating serial communication in the 8051 microcontrollers. Explain how these registers are utilized in both transmitting and receiving data serially.  b. Illustrate an assembly language program for the 8051 to transfer "ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display continuously  Or  18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L2 CO			MOV R2, #87H			
MOV B, R2 MUL AB MOV 30H, A END  15. a. Explain the 8051 TMOD Register with necessary diagram and mention the purpose of TMOD register  b. Assume XTAL = 11.0592 MHz, write a program to generate a square wave of 50 kHz frequency on pin P2.3 select timer 1- and 16-bit timer mode.  Or  16. a. Summarize the characteristics and operations of model programming of Timer in 8051 microcontrollers.  b. Assume that XTAL = 22 MHz, write a program to generate a square wave of 2 kHz frequency on pin P1.5.  17. a. Explain the functions and significance of the SBUF and SCON registers in facilitating serial communication in the 8051 microcontrollers. Explain how these registers are utilized in both transmitting and receiving data serially.  b. Illustrate an assembly language program for the 8051 to transfer "ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display continuously  Or  18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L2 CO 4 interrupt Capture ("YES") serially at 10 Marks L3 CO 4 interrupt Capture ("YES") serially at 10 Marks L3 CO 4 interrupt Capture ("YES") serially at 10 Marks Captu			MOV R3, #56H			
MUL AB MOV 30H, A END  15. a. Explain the 8051 TMOD Register with necessary diagram and mention the purpose of TMOD register  b. Assume XTAL = 11.0592 MHz, write a program to generate a square wave of 50 kHz frequency on pin P2.3 select timer 1- and 16-bit timer mode.  Or  16. a. Summarize the characteristics and operations of model programming of Timer in 8051 microcontrollers.  b. Assume that XTAL = 22 MHz, write a program to generate a square wave of 2 kHz frequency on pin P1.5.  17. a. Explain the functions and significance of the SBUF and SCON registers in facilitating serial communication in the 8051 microcontrollers. Explain how these registers are utilized in both transmitting and receiving data serially.  b. Illustrate an assembly language program for the 8051 to transfer "ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display continuously  Or  18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L2 CO 4 interrupt Continuously 10 Marks L2 CO 4 interrupt Continuously 11 Marks CD CO 4 diagram. Also, explain the process of enabling and disabling an interrupt CD			MOV A, R0			
MOV 30H, A   END			MOV B, R2			
END   END			MUL AB			
15. a. Explain the 8051 TMOD Register with necessary diagram and mention the purpose of TMOD register  b. Assume XTAL = 11.0592 MHz, write a program to generate a square wave of 50 kHz frequency on pin P2.3 select timer 1- and 16-bit timer mode.  Or  16. a. Summarize the characteristics and operations of mode1 programming of Timer in 8051 microcontrollers.  b. Assume that XTAL = 22 MHz, write a program to generate a square wave of 2 kHz frequency on pin P1.5.  17. a. Explain the functions and significance of the SBUF and SCON registers in facilitating serial communication in the 8051 microcontrollers. Explain how these registers are utilized in both transmitting and receiving data serially.  b. Illustrate an assembly language program for the 8051 to transfer "ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display continuously  Or  18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L2 C0  4			MOV 30H, A			
b. Assume XTAL = 11.0592 MHz, write a program to generate a square wave of 50 kHz frequency on pin P2.3 select timer 1- and 16-bit timer mode.  Or  16. a. Summarize the characteristics and operations of model programming of Timer in 8051 microcontrollers.  b. Assume that XTAL = 22 MHz, write a program to generate a square wave of 2 kHz frequency on pin P1.5.  17. a. Explain the functions and significance of the SBUF and SCON registers in facilitating serial communication in the 8051 microcontrollers. Explain how these registers are utilized in both transmitting and receiving data serially.  b. Illustrate an assembly language program for the 8051 to transfer "ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display continuously  Or  18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L3 C0  4 Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L3 C0  4 Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L3 C0			END			
b. Assume XTAL = 11.0592 MHz, write a program to generate a square wave of 50 kHz frequency on pin P2.3 select timer 1- and 16-bit timer mode.  Or  16. a. Summarize the characteristics and operations of model programming of Timer in 8051 microcontrollers.  b. Assume that XTAL = 22 MHz, write a program to generate a square wave of 2 kHz frequency on pin P1.5.  17. a. Explain the functions and significance of the SBUF and SCON registers in facilitating serial communication in the 8051 microcontrollers. Explain how these registers are utilized in both transmitting and receiving data serially.  b. Illustrate an assembly language program for the 8051 to transfer "ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display continuously  Or  18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L3 C0  4 Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L3 C0  4 Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L3 C0	15		Explain the 2051 TMOD Posiston with management diagrams and	10 Marilia	1.2	CO2
b. Assume XTAL = 11.0592 MHz, write a program to generate a square wave of 50 kHz frequency on pin P2.3 select timer 1- and 16-bit timer mode.  Or  16. a. Summarize the characteristics and operations of model programming of Timer in 8051 microcontrollers.  b. Assume that XTAL = 22 MHz, write a program to generate a square wave of 2 kHz frequency on pin P1.5.  17. a. Explain the functions and significance of the SBUF and SCON registers in facilitating serial communication in the 8051 microcontrollers. Explain how these registers are utilized in both transmitting and receiving data serially.  b. Illustrate an assembly language program for the 8051 to transfer "ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display continuously  Or  18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L3 C0	15.	a.		10 Marks	LZ	LU3
square wave of 50 kHz frequency on pin P2.3 select timer 1- and 16-bit timer mode.  Or  16. a. Summarize the characteristics and operations of mode1 programming of Timer in 8051 microcontrollers.  b. Assume that XTAL = 22 MHz, write a program to generate a square wave of 2 kHz frequency on pin P1.5.  17. a. Explain the functions and significance of the SBUF and SCON registers in facilitating serial communication in the 8051 microcontrollers. Explain how these registers are utilized in both transmitting and receiving data serially.  b. Illustrate an assembly language program for the 8051 to transfer "ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display continuously  Or  18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L3 C0			mention the purpose of TMOD register			
16-bit timer mode.  Or  16. a. Summarize the characteristics and operations of mode1 programming of Timer in 8051 microcontrollers.  b. Assume that XTAL = 22 MHz, write a program to generate a square wave of 2 kHz frequency on pin P1.5.  17. a. Explain the functions and significance of the SBUF and SCON registers in facilitating serial communication in the 8051 microcontrollers. Explain how these registers are utilized in both transmitting and receiving data serially.  b. Illustrate an assembly language program for the 8051 to transfer "ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display continuously  Or  18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L2 C0 diagram. Also, explain the process of enabling and disabling an interrupt  10 Marks L2 C0 A diagram. Also, explain the process of enabling and disabling an interrupt		b.	Assume XTAL = 11.0592 MHz, write a program to generate a	10 Marks	L3	CO3
16. a. Summarize the characteristics and operations of model programming of Timer in 8051 microcontrollers.  b. Assume that XTAL = 22 MHz, write a program to generate a square wave of 2 kHz frequency on pin P1.5.  17. a. Explain the functions and significance of the SBUF and SCON registers in facilitating serial communication in the 8051 microcontrollers. Explain how these registers are utilized in both transmitting and receiving data serially.  b. Illustrate an assembly language program for the 8051 to transfer "ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display continuously  0r  18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L2 C0 4			square wave of 50 kHz frequency on pin P2.3 select timer 1- and			
16. a. Summarize the characteristics and operations of mode1 programming of Timer in 8051 microcontrollers.  b. Assume that XTAL = 22 MHz, write a program to generate a square wave of 2 kHz frequency on pin P1.5.  17. a. Explain the functions and significance of the SBUF and SCON registers in facilitating serial communication in the 8051 microcontrollers. Explain how these registers are utilized in both transmitting and receiving data serially.  b. Illustrate an assembly language program for the 8051 to transfer "ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display continuously  Or  18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L3 C0 4			16-bit timer mode.			
16. a. Summarize the characteristics and operations of mode1 programming of Timer in 8051 microcontrollers.  b. Assume that XTAL = 22 MHz, write a program to generate a square wave of 2 kHz frequency on pin P1.5.  17. a. Explain the functions and significance of the SBUF and SCON registers in facilitating serial communication in the 8051 microcontrollers. Explain how these registers are utilized in both transmitting and receiving data serially.  b. Illustrate an assembly language program for the 8051 to transfer "ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display continuously  Or  18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L3 C0 4						
b. Assume that XTAL = 22 MHz, write a program to generate a square wave of 2 kHz frequency on pin P1.5.  17. a. Explain the functions and significance of the SBUF and SCON registers in facilitating serial communication in the 8051 microcontrollers. Explain how these registers are utilized in both transmitting and receiving data serially.  b. Illustrate an assembly language program for the 8051 to transfer "ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display continuously  Or  18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L3 C0	4.5	ı	_	4024		200
b. Assume that XTAL = 22 MHz, write a program to generate a square wave of 2 kHz frequency on pin P1.5.  17. a. Explain the functions and significance of the SBUF and SCON registers in facilitating serial communication in the 8051 microcontrollers. Explain how these registers are utilized in both transmitting and receiving data serially.  b. Illustrate an assembly language program for the 8051 to transfer "ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display continuously  Or  18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L3 C0	16.	a.		10 Marks	L2	CO3
17. a. Explain the functions and significance of the SBUF and SCON registers in facilitating serial communication in the 8051 microcontrollers. Explain how these registers are utilized in both transmitting and receiving data serially.  b. Illustrate an assembly language program for the 8051 to transfer "ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display continuously  Or  18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L3 C0			programming of Timer in 8051 microcontrollers.			
17. a. Explain the functions and significance of the SBUF and SCON registers in facilitating serial communication in the 8051 microcontrollers. Explain how these registers are utilized in both transmitting and receiving data serially.  b. Illustrate an assembly language program for the 8051 to transfer "ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display continuously  Or  18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L3 C0		b.	Assume that XTAL = 22 MHz, write a program to generate a	10 Marks L3		CO3
registers in facilitating serial communication in the 8051 microcontrollers. Explain how these registers are utilized in both transmitting and receiving data serially.  b. Illustrate an assembly language program for the 8051 to transfer "ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display continuously  Or  18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L3 C0			square wave of 2 kHz frequency on pin P1.5.			
registers in facilitating serial communication in the 8051 microcontrollers. Explain how these registers are utilized in both transmitting and receiving data serially.  b. Illustrate an assembly language program for the 8051 to transfer "ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display continuously  Or  18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L3 C0						
microcontrollers. Explain how these registers are utilized in both transmitting and receiving data serially.  b. Illustrate an assembly language program for the 8051 to transfer "ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display continuously  Or  18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L3 CO	17.	a.	Explain the functions and significance of the SBUF and SCON	10 Marks	L2	CO
both transmitting and receiving data serially.  b. Illustrate an assembly language program for the 8051 to transfer "ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display continuously  Or  18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L3 C0			registers in facilitating serial communication in the 8051			4
b. Illustrate an assembly language program for the 8051 to transfer "ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display continuously  Or  18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L3 C0			microcontrollers. Explain how these registers are utilized in			
"ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display continuously  Or  18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L3 C0			both transmitting and receiving data serially.			
Continuously  Or  18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L3 C0		b.	Illustrate an assembly language program for the 8051 to transfer	10 Marks	L3	СО
18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L3 C0			"ABC" serially at 4800 baud, 8-bit data, 1 stop bit and display			4
<ul> <li>18. a. Explain the Interrupt Enable Register with the necessary diagram. Also, explain the process of enabling and disabling an interrupt</li> <li>b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L3 CO</li> </ul>			continuously			
diagram. Also, explain the process of enabling and disabling an interrupt  b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L3 CO		I.	0r	ı	<u>'</u>	
<ul> <li>interrupt</li> <li>b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L3 CO</li> </ul>	18.	a.	Explain the Interrupt Enable Register with the necessary	10 Marks	L2	2 CO
b. Illustrate a program for the 8051 to transfer "YES" serially at 10 Marks L3 CO			diagram. Also, explain the process of enabling and disabling an			4
			interrupt			
		l.	Illustrate a program for the OOT1 to tree for "VEC" and Illustrate	10 Mars) -	1 -	) (0
9000 baud, 8-bit data, 1 stop bit, do this continuously 4		υ.		TO Marks	L3	
			9000 baud, 8-bit data, 1 stop bit, do this continuously			4