Course Code	+	Specialization)	Semester :	Fall 2025-2026
& Course Title	1:	BECE204L & Microprocessors and Microcontrollers	Slot :	AI + TAI
Faculty	*	Dr. SUBHASHINI N Dr. JOHN SAHAYA RANI ALEX Dr. VIGNESWARAN T Dr. CHITRA K Dr. M. JAGANNATH Dr. BERLIN HENCY Dr. SIVASUBRAMANIAN A Dr. VYDEKI D Dr. RICHARDS JOE STANISLAUS Dr. HARIHARAN Dr. SUHASINI S Dr. MOHAMMED AARIF K O	Class Number :	CH2025260102157 CH2025260102160 CH2025260102163 CH2025260102166 CH2025260102169 CH2025260102172 CH2025260102174 CH2025260102176 CH2025260102179 CH2025260102184 CH2025260102184
sion		90 Minutes	Max. Mark	50

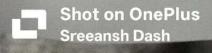
- neral Instructions:

 Write only your registration number on the question paper in the box provided and do not write other information

 Only non-programmable calculator without storage is permitted

Answer all questions

100	Su Sec		I	Description	Marks	co	BT
		Consider monitors whenever is FULL crystal Di Draw the peripherals	the water level of the tank rank is empty. The moto. Here, the water level of splay). block diagram of the all serequired if the system is rocessor and	ystem in an overhead tank. This system is and automatically switches ON the motor is switched OFF when the overhead tank of the tank is indicated on LCD (Liquid bove system with necessary modules and implemented using	5	1	KI
2		Fill in Table 1 by specifying the values in the internal RAM locations and registers after the execution of each instruction of the following program. Table 1				3	K2
			Program	Value		11	
			ORG 0000H			1	
			MOV A, #27H		1 1	1	1
			MOV R0, #22H				
			SUBB A, R0		1		
			ANLA, RO				



1931	JAA 92			
	MOV 22H, A			
	SETB 69H			
	MOV 17H, @R0			
	MOV PSW, #10H			
	RRA			
	SWAPA			
3	END			
	Write an assembly language program for 8051 microcontroller to find the greatest of the five numbers stored from RAM location 50H. Store the result in 40H.	10	3	K3
4	Write an assembly language program for 8051 microcontroller to make a subroutine that will generate a delay of exact 1 ms. Use this delay to generate a square wave of frequency 0.25 kHz at P2.4. Assume that the crystal frequency is 11.0592 MHz. (Note: Do not use Timer)		4	K3
5	Write an assembly language program for 8051 microcontroller to check and transmit the bank account balance status serially at a baud rate of 9600. Assume the bank account balance is stored as an 8-bit hexadecimal value ranging from 00H to FFH, where, • 00H represents a zero balance. • Any value from 01H to FFH represents a non-zero balance. The account balance is input via Port P3 of the 8051 microcontroller. If the account balance is 00H, transmit the message "Nil Balance" serially, otherwise send the actual balance amount to Port P1. Assume the crystal frequency is 12 MHz.		4	K3

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