MARKING SCHEME

PROGRAMME:	INDUSTRIAL AUTOMATION & ROBOTIC	DURATION
TOPIC:	PROGRAMMING MICROCONTROLLER – PROTEUS SIMULATION	3 HOURS
CODE / SUBJECT:	DMR40333 / EMBEDDED SYSTEM	ASSESSMENT
STUDENT NAME:		LAB 1
SEM/SESSION:	SEMESTER 4 / SESSION JANUARY - JUNE 2023	

No.	Criteria		Basic Mark	Factor/ FP	Obtain Basic Mark	Full Mark
	WORK PROCESS					
A	**SECTION A [RESULT]**					
	Result No.1 (Simulation 1)					
	- Play Button is ON - Any LED is light up - Output signal on Arduino pin is light up for which LED is ON	No any	0	3		9
		Any 1	1			
		Any 2	2			
		All	3			
	Result No.2 (Modified Circuit)					
	- Connection BUTTON to any Arduino pin - Connection +5V to BUTTON - Connection resistor 10kΩ to BUTTON at Arduino pin - Connection resistor 10kΩ to GROUND - Use PULL-UP Resistor switch circuit	No any	0	3		15
		Any 1	1			
		Any 2	2			
		Any 3	3			
		Any 4	4			
		All	5			
	Result No.3 (Modified Program)					
	- Declare BUTTON pin - Declare LED 5 and LED 6 pin - ledBlink function - Correct ledBlink delay time - Correct if() function for ledBlink() - Correct else() function for LED chase	No any	0	4		20
		Any 1	1			
		Any 2	2			
		Any 3	3			
		Any 4	4			
		Any 5 and above	5			
	Result No.4 (Simulation 2)					
	- Play Button is ON - LED 5 and 6 are light up - push BUTTON is hold pressed	No any	0	3		9
		Any 1	1			
		Any 2	2			
		All	3			
B	**SECTION B [DISCUSSION]**					
	Discussion No.1					
	Correct as given marks (Total 4 marks)			1		4
	Discussion No.2					
	Correct as given marks (Total 7 marks)			1		7
	Discussion No.3					
	Correct as given marks (Total 5 marks)			1		5
	Discussion No.4					
	No attach any		0	2		10
	Partial observation by student		1			
	Wholy observation by student but no relate to objective		2			
	Wholy observation by student and related to objective but not complete		3			
	Wholy observation by student, related to objective completely but not discuss solution		4			
	Wholy observation by student, related to objective completely and discuss solution		5			
C	**SECTION C [CONCLUSION]**					
	Not attach any		0	2.5		5
	Make a conclusion but not completety relate with the result obtain		1			
	Make a conclusion and completety relate with the result obtain		2			
				TOTAL (A + B + C)		84
				TOTAL / 84 X 100%		

LECTURER	SIGNATURE	DATE