B.Tech. SEM -VII Electrical 2014 Course (CBCS) : WINTER - 2018

SUBJECT-ADVANCED MICROCONTROLLER

Day: Monday **W-2018-2553** Time: 02.30 PM TO 05.30 PM

Date: 03/12/2018 Max. Marks: 60

N.B.:

1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Draw neat diagram **WHEREVER** necessary.
4) Assume suitable data if necessary.

Q.1	**a)**	Compare CISC & RISC.	**(05)**
	b)	Draw block diagram of PIC 18F458 microcontroller	**(05)**
		OR	
Q.1	**a)**	Write a note on RAM organization of PIC 18F458 microcontroller.	**(05)**
	b)	Explain power down modes of PIC 18F458 microcontroller.	**(05)**
Q.2	**a)**	Explain addressing modes of PIC 18F458 microcontroller.	**(05)**
	b)	Write a note on header & source file.	**(05)**
		OR	
Q.2	**a)**	Write a note on pre- processor directives.	**(05)**
	b)	Explain five instructions related to PIC 18F458 microcontroller.	**(05)**
Q.3	**a)**	Explain development tools for PIC microcontroller.	**(05)**
	b)	Explain MPLAB integrated development environment (IDE).	**(05)**
		OR	
Q.3	**a)**	Explain timer operation for PIC 18F458 microcontroller.	**(05)**
	b)	Discuss interrupts for PIC 18F458 microcontroller.	**(05)**
Q.4	**a)**	Write a note on serial port programming of PIC 18F458.	**(05)**
	b)	Explain interfacing of PIC 18F458 with LED.	**(05)**
		OR	
Q.4	**a)**	Explain interfacing of PIC 18F458 with LCD (16x2).	**(05)**
	b)	Write a note on SPI protocol.	**(05)**
Q.5	**a)**	Explain interfacing of stepper motor with PIC 18F458 microcontroller.	**(05)**
	b)	Explain PWM mode with interrupt in PIC 18F458.	**(05)**
		OR	
Q.5	**a)**	Explain speed control of DC motor with PIC 18F458 microcontroller.	**(05)**
	b)	Explain capture mode with interrupt in PIC 18F458.	**(05)**
Q.6	**a)**	Explain interfacing of ADC with PIC 18F458 microcontroller.	**(05)**
	b)	Explain measurement of temperature with PIC 18F458 microcontroller.	**(05)**
		OR	
Q.6	**a)**	Explain measurement of voltage with PIC 18F458 microcontroller.	**(05)**
	b)	Explain interfacing of DAC with PIC18F458 microcontroller.	**(05)**

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