## Department: Electronic Engineering

Program: **B.S** (EE)

## Assignment 1 EE-423 Embedded System Design and Application

Announced date: 29-03-2022

Due Date: 05-04-2022

Total Marks = 10

Marks Obtained =

Sr.	Course Learning Outcomes	PLOs	Blooms
No			Taxonomy
1	<b>Comprehend</b> the basic knowledge of embedded system and its architecture included PIC microcontroller and FPGA.	PLO_1 (Engineering Knowledge)	C2 (Understand)

## **Attempt All Questions**

- Q1. Compare the data ram and EEPROM in PIC 18 microcontroller.
- Q2. Demonstrate the function of MOVF and MOVWF instructions
- Q3. Explain the pins of PIC18F458 are designated as I/O port pin.
- Q4. Explain the role of TRISX and PORTX in I/O operations.
- Q5. Classify the main features of PIC 16 and PIC 18 microcontroller
- Q6. Explain the internal architecture of PORTA
- Q7. Explain the Harvard and Von-Neumann architecture with diagram.
- Q8. Predict the status of status flags register after execution of following arithmetic operation. (Note: All given number are in hexadecimal base format for eg. DC = 11011100)
  - 37 5F
  - 23 + DC
  - D1 + 39
  - 59 20

Q9. Distinguish between the Following

- i) RISC and CISC
- ii) GOTO and BRA
- iii) CALL and RCALL

Q10 Explain all directives of PIC microcontroller.