Name:	
Enrolment No:	

UPES
End Semester Examination,Decmber 2024

Programme Name : B.Tech (Mechatronics Engineering) **Semester   : VTH**
Course Name   :   Embedded System **Time   : 03 hrs**
Course Code   : ECEG 3039 **Max. Marks: 100**
Nos. of page(s)   : 01
Instructions: NA

SECTION A
Answer all questions

S. No.		Marks	CO
Q 1	Illustrate the Buses and its type of Microcontroller	4	CO3
Q 2	Enumerate the Flag Register of AVR Microcontroller	4	CO1
Q 3	Compute the Following operation and write the status of flag register of 8085 (A) 10110001 AND 01100011 (B) 10110001 OR 01100011	4	CO2
Q 4	Contrast between the Microprocessor and Microcontroller	4	CO3
Q 5	Classify the Type of Microcontroller	4	CO2

SECTION B
Answer all questions

Q 7	Interface the ATMEGA with Seven Segment Display.	10	CO4
Q 8	Summaries the various application of embedded system .	10	CO3
Q9	Describe the Architecture of ARM Microcontroller	10	CO1
Q 10	Write short notes on Program Counter, Memory , Accumulator and Registers for AVR microcontroller. **OR** Enumerate the Embedded Systems with the help of the block diagram.	10	**CO1**

SECTION C
Answer all question

Q 11	Depict the Speed control of DC Motor using ATMEGA	20	**CO4**
Q12	Detail about Real Time Operating System (RTOS) with the help of block diagram. **OR** Explain the Architecture of kernel	20	**CO2**