Regulation R18 *Subject code: 2P6DB*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech VI Semester Supplementary Examinations, February 2024

MICROPROCESSORS AND MICROCONTROLLERS

(ECE)

Maximum Marks: 70 Date:17.02.2024 **Duration: 3 Hours**

Note: **1.This question paper contains two parts A and B.**
2. Part A is compulsory which carries 10 marks. Answer all questions in Part A.
3. Part B consists of 10 questions. Answer any 5 questions which carries 12M.
4. Each question carries 12marks and may have a, b, c, d as sub questions.

	Part-A		
All the following questions carry equal marks (10X2M=20 Marks)		CO	Bloom Tx
1	Explain Register addressing mode of 8086 microprocessor with two examples.	CO1	L2
2	What are the flags in 8086 microprocessor flag register?	CO1	L1
3	List the various interrupts supported by 8051 microcontroller.	CO2	L1
4	Draw TMOD register.	CO2	L1
5	What are advantages of serial data transfer scheme?	CO3	L1
6	Describe EEPROM.	CO3	L2
7	List any 3 features of ARM.	CO4	L1
8	Explain the flags available in CPSR in ARM.	CO4	L2
9	Mention applications of CORTEX processor.	CO5	L2
10	What are the advantages of OMAP Processors?	CO5	L1
	Part-B		
Answer all the questions (5X10M=50Marks)			
11	Explain the architecture of 8086 Microprocessor with a neat sketch. [10]	CO1	L2
	OR		
12	List and Explain 8086 Microprocessor Data Transfer instructions with examples. [10]	CO1	L2
13	Draw the Pin diagram of 8051 microcontroller and explain each pin in detail. [10]	CO2	L2
	OR		
14	Describe Memory Organization of 8051 microcontroller neatly. [10]	CO2	L2
15	Write short notes on Serial Communication standards and Explain I2C bus working. [10]	CO3	L2
	OR		
16	Explain Interfacing of D to A Converter with 8051 Microcontroller. [10]	CO3	L2
17	Draw and Explain the Architecture of ARM Processor. [10]	CO4	L2
	OR		
18	Explain Data Processing instructions of ARM. [10]	CO4	L2
19	With a neat diagram, explain the Architecture of CORTEX Processor. [10]	CO5	L2
	OR		
20	a) Outline the Features of OMAP processor. [5] b) Explain applications of OMAP Processor in detail. [5]	CO5	L2