Regulation R18 *Subject code: 2P6DB*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VI Semester Supplementary Examinations, June/July 2023

MICROPROCESSORS AND MICROCONTROLLERS

(ECE)

Maximum Marks: 70 Date:24.06.2023 **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)

1 Write the Register addressing mode of 8086 microprocessor with two examples.
2 What are the flags in 8086 microprocessor FLAG REGISTER?
3 List the various interrupts supported by 8051 microcontroller.
4 Draw TMOD register.
5 What are advantages of serial data transfer scheme?
6 Describe EEPROM.
7 List any 3 features of ARM.
8 Explain the flags available in CPSR in ARM.
9 Mention applications of CORTEX processor.
10 What are the advantages of OMAP Processors?

Part-B

Answer all the questions (5X10M=50Marks)

11 Explain the Architecture of 8086 Microprocessor with a neat sketch. [10]

OR

12 List and Explain 8086 Microprocessor Data Transfer instructions with examples. [10]
13 Draw the Pin diagram of 8051 microcontroller and explain each pin in detail. [10]

OR

14 Describe Memory Organization of 8051 microcontroller neatly. [10]
15 Write short notes on Serial Communication standards and Explain I2C BUS working. [10]

OR

16 Explain Interfacing of D to A Converter with 8051 Microcontroller. [10]
17 Draw and Explain the Architecture of ARM Processor. [10]

OR

18 Explain Data Processing instructions of ARM. [10]
19 With a neat diagram, explain the Architecture of CORTEX Processor. [10]

OR

20 Explain features and applications of OMAP Processor in detail. [10]