



Regulation R18

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

Subject code: 2P5BC

B.Tech V Semester Supplementary Examinations, January 2023

MICROPROCESSORS AND MICROCONTROLLERS

Maximum Marks: 70

(EEE)

11/1/23

Duration: 3 Hours

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 Differentiate between Microprocessors and Microcontrollers.
- 2 Define the Flag register in 8086.
- 3 Define the hardware and software interrupts.
- 4 Draw TMOD register.
- 5 What are advantages of serial data transfer scheme?
- 6 Write about ROM.
- 7 List the features of ARM processor.
- 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 Draw the Architecture of 8086 Microprocessor with a neat sketch and explain. [10]

OR

- 12 Explain the addressing modes of 8086 Microprocessor with suitable examples. [10]
- 13 List the features of 8051 microcontroller and explain pin diagram 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 Stepper motor with 8086 Microprocessor. [10]
- 17 Draw and Explain the Architecture of ARM Processor. [10]

OR

- 18 Explain Data Processing instructions of ARM. [10]
- 19 Explain the Architecture of CORTEX Processor and write its advantages. [10]

OR

- 20 a) Outline the Features of OMAP processor [5]
b) Explain applications of OMAP Processor in detail. [5]

