



R18 Regulation

Subject code:207FA

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VII Semester Supplementary Examinations, November 2023

MICROPROCESSORS AND MICROCONTROLLERS (Information Technology) (Open Elective)

Maximum Marks: 70

Date:08.12.2023 Duration: 3 hours

- Note:**
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

1	Explain the use of Direction Flag and Parity Flag in 8086 microprocessor.	L2
2	Draw the Flag register of 8086 and indicate flag names.	L2
3	List out the features of 8051 microcontroller in detail.	L1
4	Categorize Register Banks of RAM in 8051.	L2
5	What is need of RS-232.	L1
6	What are advantages of serial data transfer scheme?	L1
7	List out different registers used in ARM Processor.	L2
8	Explain the concept of Loading Constants in ARM Processor.	L2
9	What are applications of OMAP.	L1
10	Classify OMAP Processors.	L2

Part-B

Answer All the following questions.

(5X10M=50Marks)

11	Explain the Architecture of 8086 Microprocessor with a neat sketch. (10M)	L2
	OR	
12	List and Explain 8086 Microprocessor Data Transfer instructions with examples. (10M)	L2
13	Explain addressing modes of 8051 Microcontroller. (10M)	L2
	OR	
14	Explain the Architecture of 8051 Microcontroller with a neat sketch. (10M)	L2
15	A. Explain Asynchronous transmission in serial mode. (5M) B. Write short notes on SPI Bus with neat diagram. (5M)	L2 L2
	OR	
16	Design the interfacing of external RAM with 8051 microcontroller with neat diagram. (10M)	L3
17	Draw and Explain the Architecture of ARM Processor. (10M)	L3
	OR	
18	Explain Data Processing instructions of ARM. (10M)	L2

19	List out classification of CORTEX processor and explain one type with its neat architecture. (10M)	L3
	OR	
20	List the main features of OMAP Processor. With a neat diagram explain the architecture of OMAP Processor. (10M)	L3