R20 Regulation *Subject code:3P4FB*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech IV Semester Supplementary Examinations, July 2024

COMPUTER ORGANIZATION
(IT)

Maximum Marks: 70 Date:20.07.2024 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)		CO	Bloom Tx
1	Define Digital Computer.	1	L1
2	Compare Hardwired control and Micro programmed control.	1	L1
3	Explain about programmed I/O	2	L1
4	Explain different type of Hardware and Software interrupts.	2	L1
5	Draw the block of a RAM & ROM chips.	3	L1
6	Explain the locality of reference.	3	L2
7	Discuss the purpose of INTR in 8086 micro-processor	4	L1
8	What is non-maskable interrupt of 8086 micro-processor?	4	L3
9	How do you implement FOR loop in assembly language.	5	L3
10	What is the use of CMP'S 8086 micro-processor instruction?	5	L3
	Part-B		
Answer All the following questions. (5X10M=50Marks)			
11	Explain the instruction cycle stepwise of basic computer with help of flow chart. (10M)	1	L2
	OR		
12	Explain various instruction formats of a basic computer with example for each type. (10M)	1	L2
13	Explain source initiated and destination initiated data transfer using Handshaking method. (10M)	2	L3
	OR		
14	Draw the block diagram of DMA controller and DMA Transfer of data with relevant information. (10M)	2	L3
15	Describe associate mapping in cache memory. (10M)	3	L3
	OR		
16	Explain virtual memory concept and how the logical address mapped to the physical address with numerical example. (10M)	3	L2
17	Draw the flag register format of 8086 micro-processor and explain about each flag. (10M)	4	L3

	OR		
18	Explain the addressing modes of 8086 micro processor with examples. (10M)	4	L3
19	Write a program 8086 AL, for displaying the string using library functions. (10M)	5	L5
	OR		
20	Explain about the concept of segmented memory with a neat diagram explain its advantages (10M)	5	L5