



R20 Regulation *Subject code:3P4FB*
TKR COLLEGE OF ENGINEERING AND TECHNOLOGY
 (Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech IV Semester Supplementary Examinations, December 2024

COMPUTER ORGANIZATION
(Information Technology)

Maximum Marks: 70

Date:05.12.2024

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	What are the advantages of DMA?	2	L1
4	Explain different type of Hardware and Software interrupts.	2	L1
5	Explain content addressable memory	3	L1
6	Explain about auxiliary memory in memory organization	3	L1
7	Discuss the purpose of INTR in 8086 micro-processor	4	L1
8	Write the memory Read statement in 8086 micro-processor	4	L1
9	Explain ROR and ROL 8086 instruction	5	L1
10	Explain stoning instruction of 8086.	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		CO	Bloom Tx
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	A CPU with 20 MHz clock in connected to a memory unit whose access time is 40ns. Formulated a read and write timing diagrams, using a READ strobe and a WRITE strobe. Include the address in the timing diagram. [10M]	2	L2
OR			
14	Draw the block diagram of DMA controller and DMA Transfer of data with relevant information. [10M]	2	L2
15	Write short note on [4M+3M+3M] A) RAM B) ROM C) Hit ratio.	3	L2
OR			

16	Draw the diagram of memory hierarchy and explain. [10M]	3	L2
17	Draw the register organization of 8086 and explain typical applications of each register. [10M]	4	L2
OR			
18	Explain the 8086 micro-processor architecture. [10M]	4	L2
19	Explain the special and general-purpose registers. [10M]	5	L2
OR			
20	What is interrupt vector table of 8086 explain its structure. [10M]	5	L2