

**ANURAG Engineering College**

(An Autonomous Institution)

II B.Tech I Semester Supplementary Examinations, June/July–2024

**COMPUTER ORGANIZATION AND MICROPROCESSOR****(INFORMATION TECHNOLOGY)****Time: 3 Hours****Max. Marks: 60****Section – A (Short Answer type questions)****(10 Marks)****Answer All Questions**

	Course Outcome	B.T Level	Marks
1. Define Computer register	CO1	L1	1M
2. What is the Use of Program Counter register	CO1	L1	1M
3. Define non-overlapping segments	CO2	L1	1M
4. What is the function of NMI signal in 8086	CO2	L1	1M
5. List out the disadvantages of Machine Level programming	CO3	L1	1M
6. What is MASM	CO3	L1	1M
7. What is the use of DMA	CO4	L1	1M
8. What is programmed I/O and interrupt Initiated I/O	CO4	L1	1M
9. Define RAM and ROM	CO5	L1	1M
10. What are the Pros and Cons of Pipelining	CO5	L1	1M

**Section B (Essay Questions)****Answer all questions, each question carries equal marks.****(5 X 10M = 50M)**

11. A) Explain instruction cycle in detail	CO1	L2	10M
<b>OR</b>			
B) Explain in detail about basic computer Timing and Control design.	CO1	L2	10M
12. A) Identify the register organization of 8086	CO2	L3	10M
<b>OR</b>			
B) Explain about Physical memory organization of 8086	CO2	L2	10M
13. A) Write an Assembly Language program to convert a four-digit Octal number to Decimal numbers	CO3	L3	10M
<b>OR</b>			
B) Write an Assembly Language program to find out transpose of a 3x3 matrix	CO3	L3	10M
14. A) Illustrate Division Algorithm with an example	CO4	L2	10M
<b>OR</b>			
B) Explain Asynchronous data transfer in detail.	CO4	L2	10M
15. A) Explain hardware organization of Associative memory and also discuss read and write operations in associative memory	CO5	L2	10M
<b>OR</b>			
B) What is Instruction pipeline? Explain the operations of four segment pipeline	CO5	L2	10M