

ANURAG Engineering College

(An Autonomous Institution)

III B.Tech II Semester Regular/Supplementary Examinations, June/July-2024

MICROPROCESSORS AND MICROCONTROLLERS**(ELECTRICAL AND ELECTRONICS ENGINEERING)****Time: 3 Hours****Max. Marks: 75****Section – A (Short Answer type questions)****(25 Marks)****Answer All Questions**

	Course Outcome	B.T Level	Marks
1. Illustrate the process of pipelining.	CO1	L1	2M
2. Explain in detail functioning of EU.	CO1	L2	3M
3. Compare Serial and Parallel Interface.	CO2	L1	2M
4. Write the control word of 8255 PPI.	CO2	L2	3M
5. Define microcontroller.	CO3	L1	2M
6. List out the important features of 8051 Microcontroller along with its applications.	CO3	L2	3M
7. What is the size of program counter and SP register in 8051?	CO4	L1	2M
8. Sketch the following SFRs of 8051 Microcontroller in detail: TCON	CO4	L2	3M
9. What is Proteus used for?	CO5	L1	2M
10. What are the three main parts of the Arduino Program.	CO5	L2	3M

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

11. A) What is meant by addressing mode? Explain the different addressing modes available in 8086 microprocessors?	CO1	L2	10M
OR			
B) Describe the various Pins of 8086 with a neat diagram.	CO1	L3	10M
12. A) With the help of neat diagram explain how 8251 is interfaced with 8086 and used for serial communication?	CO2	L3	10M
OR			
B) Analyze the internal circuit diagram of USART and explain the function of each block in detail.	CO2	L3	10M
13. A) Draw the Pin Diagram of 8051 and explain the function of various signals.	CO3	L3	10M
OR			
B) List the addressing modes of 8051. List the arithmetic and logical Instructions of 8051.	CO3	L3	10M
14. A) Explain about the IE, IP and TCON, PCON, SCON registers?	CO4	L3	10M
OR			
B) Mention the significance of the pins $\overline{INT0}$ and $\overline{INT1}$ of 8051 microcontrollers.	CO4	L3	10M
15. A) Write the commands to execute the program? And give the simple examples of arduino?	CO5	L2	10M
OR			
B) Explain about arduino? Write the instruction programming using arduino?	CO5	L2	10M