BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION SP2023)

CLASS: BTECH
BRANCH: EEE

SEMESTER : IV
SESSION : SP2023

SUBJECT: EE303 INTRODUCTION TO MICROPROCESSOR & MICROCONTROLLERS

TIME: 02 Hours

FULL MARKS: 25

INSTRUCTIONS:
1. The question paper contains 5 questions each of 5 marks and total 25 marks.
2. Attempt all questions.
3. The missing data, if any, may be assumed suitably.
4. Tables/Data handbook/Graph paper etc., if applicable, will be supplied to the candidates

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			CO	BL
Q.1(a)	The segment address is given as 1234 H and Offset address is 0005 H. Find out the physical address.	[2]	CO-1	
Q.1(b)	Explain the architecture of 8086 microprocessor with suitable block diagram.	[3]	CO_3	
Q.2(a)	Write short notes on (a) minimum and maximum operating modes (b) pipelining.	[2]	CO-1	
Q.2(b)	Explain the 8086 flag register format and significance of each flag bit. Add two signed hexadecimal 42 H and 44 H, and find out the effects on the status flags.	[3]	CP-3	
Q.3(a)	Write the advantages and disadvantages of pipelining feature in 8086 microprocessor.	[2]	CO-2	
Q.3(b)	Elucidate the memory segmentation in the 8086 microprocessor. State its advantages.	[3]	CO-2	
Q.4(a)	Explain the significance of the following pins in 8086 microprocessor. (i) NMI (ii)Reset (iii) Ready (iv) GND	[2]	CO-1	
Q.4(b)	List and describe with examples different data memory, I/O and program memory addressing modes in 8086 microprocessor.	[3]	CO-2	
Q.5(a)	Classify and explain 8086 instruction set.	[2]	CO-3	
Q.5(b)	Write a program to add two 8 bit or 16 bit hexadecimal numbers.	[3]	CO-3	

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