

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

**CLASS: B.TECH
BRANCH: EEE**

**SEMESTER: V
SESSION: MO/2022**

SUBJECT: EE303 INTRODUCTION TO MICROPROCESSOR AND MICROCONTROLLERS

TIME: 2 HOURS

FULL MARKS: 25

INSTRUCTIONS:

1. The total marks of the questions are 25.
 2. Candidates may attempt for all 25 marks.
 3. Before attempting the question paper, be sure that you have got the correct question paper.
 4. The missing data, if any, may be assumed suitably.
 5. Tables/Data handbook/Graph paper etc. to be supplied to the candidates in the examination hall.
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Q1	(a) Draw and explain the internal architecture of 8085 microprocessor.	[3]		
Q1	(b) What are status pins available on 8085? Explain their meanings and uses.	[2]		
Q2	(a) Differentiate between 8085 and 8086 micro-processor based on the functional features.	[2]		
Q2	(b) Explain the types of registers and pointers available in 8086 micro-processor. Also mention their uses in programming.	[3]		
Q3	(a) Discuss the functions of the following pins - RESET, DT/R, LOCK, NMI.	[2]		
Q3	(b) Explain memory banking of 8086 and draw its interfacing diagram.	[3]		
Q4	(a) Explain different types of addressing modes available in 8086 with suitable examples.	[2]		
Q4	(b) What are the different operations on which instructions of 8086 is categorized? Mention suitable instruction names in each category.	[3]		
Q5	(a) Explain about Interrupt structure of 8086. Also mention the instructions associated with Interrupt operation.	[2]		
Q5	(b) Explain following instructions - I) XCHG, II) DAA, III) IDIV, IV) TEST	[2]		
Q5	(c) Write an ALP in 8086 to find square of a number (8-bit) at NUM and store result at RESULT.	[1]		

:::::: 27/09/2022 M :::::