

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

**CLASS: B.TECH
BRANCH: ECE/MECH**

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

SUBJECT: EC333 INTRODUCTION TO MICROCONTROLLERS

TIME: 2 HOURS

FULL MARKS: 25

INSTRUCTIONS:

1. The total marks of the questions are 25.
 2. Candidates 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 hand book/Graph paper etc. to be supplied to the candidates in the examination hall.
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		CO	BL
Q1 (a)	Distinguish between Microprocessor and Microcontroller.	[2] 01	01
Q1 (b)	Draw the inside block diagram of 8051 microcontroller.	[3] 01	02
Q2 (a)	Write name of features by which different members of 8051 microcontrollers are compared.	[2] 02	05
Q2 (b)	Compare the microcontroller chip 8051,8052 and 8031.	[3] 02	02
Q3 (a)	Define instruction, addressing modes and its types.	[2] 01	05
Q3 (b)	Explain the register PSW and indicate which bits are used to select register bank . Also, specify the address of register banks.	[3] 02	03
Q4 (a)	Write the advantages of assembly language over machine language.	[2] 03	01
Q4 (b)	Find the sum of numbers at the internal memory locations 70H-7FH. Assume that the sum is 16 bit number. Store the sum in the external data memory locations 9100H and 9101H. Also, draw the flow chart?	[3] 01	03
Q5 (a)	Write the difference among absolute jump, long jump, and short jump.	[2] 02	04
Q5 (b)	Explain the power control mode in 8051 microcontroller.	[3] 02	03