

Printed Pages : 3



EEC406

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 110408

Roll No.

--	--	--	--	--	--	--	--	--	--

B. Tech.

(SEM. IV) THEORY EXAMINATION, 2014-15
INTRODUCTION TO MICROPROCESSORS

Time : 3 Hours]

[Total Marks : 100

- Note :**
- (1) Attempt all questions .
 - (2) All questions carry equal marks.

1 Attempt any four questions. **5×4=20**

- (a) Explain the various functions performed by microprocessor.
- (b) Draw and explain the architecture of 8085 Microprocessor.
- (c) Explain the addressing modes of 8085.
- (d) Draw the timing diagram for OUT instruction.
- (e) Differentiate between Memory Mapped and I/O Mapped.
- (f) Explain the generation of control signal in 8085 microprocessor.

110408]

1

[Contd...

2 Attempt any four questions. 5×4=20

- (a) Explain all stack related. instructions.
- (b) Describe the function of following pins:
 - (i) $\overline{\text{RESETIN}}$
 - (ii) READY
 - (iii) CLK OUT
 - (iv) HOLD
- (c) Specify the register contents and the flag status as the following instructions are executed.

A	B	S	Z	CY
XX	XX	X	X	X

SUB A
MOV B, A
INR B
SUI 01H.
HLT
- (d) What is subroutine? How is it useful? Explain the use of stack in CALL and RETURN instruction.
- (e) Give the difference between CALL-RETURN and PUSH-POP.
- (f) Write a program to divide 17 by 4.

3 Attempt any two questions : 10×2=20

- (a) Classify the Interrupts of 8085 and explain all interrupts in detail.
- (b) Explain the concept of Pipelining in 8086. Also describe the register organization of 8086.
- (c) Explain the concept of segmented memory in 8086. Also list its advantages.

4 Attempt any two questions : **10×2=20**

- (a) A Binary number is stored at memory location 2000H. Write a program to convert this Binary number to its-BCD equivalent.
- (b) Write a program using 8085 to multiply two 2-Digit BCD numbers.
- (d) Write a program to generate a continuous square wave with the period of $250\mu s$: Assume the system clock period is 325 ns, and use bit D_0 to output the square wave.

5 Attempt any two questions : **10×2=20**

- (a) Briefly describe the command words of 8259 and also draw a neat interfacing diagram.
 - (b) Give different modes of operation of 8253.
 - (c) Explain various Handshaking signals in 8255. Also Describe its operating modes.
-