Sr. No...............................

May 2019
B.Tech- IV SEMESTER Reappear
Microprocessor and Interfacing (CE-210C)

Time: 3 Hours

Max. Marks:75

Instructions:
1. It is compulsory to answer all the questions (1.5 marks each) of Part -A in short.
2. Answer any four questions from Part -B in detail.
3. Different sub-parts of a question are to be attempted adjacent to each other.
4. Any other specific instructions

PART -A

Q1 (a) Which signal of 8085 Microprocessor is used to insert wait state? (1.5)

(b) Explain role of NOP and HALT instruction with example. (1.5)

(c) What is UART? Explain. (1.5)

(d) Explain the addressing modes: Indexed, Indirect. (1.5)

(e) What is the role of stack pointer and program counter in MPU? (1.5)

(f) What is handshaking? Explain (1.5)

(g) What are vectored interrupt? Give example (1.5)

(h) Differentiate between programmed I/O and memory mapped I/O. (1.5)

(i) Explain the instruction: XCHG,EI (1.5)

(j) Why DMA facility is required in microprocessor based system? (1.5)

PART -B

Q2 (a) The following 8085 instructions are executed as: (5)
```
XRA A
MOV L,A
MOV H;L
INX H
DAD H
```
After execution of program find the content of HL pair

(b) Explain the purpose of following instructions: (10)
1]RIM 2)SIM 3) RRC 4)DAD 5)SLR

Q3 (a) Explain BSR and I/O modes of 8255 PPI chips (7)

(b) What do you understand by instruction set? Explain all instructions of 8085 in detail. (8)

Q4 (a) Explain the architecture and block diagram of 8086 microprocessor in detail. (15)
And also write a program in 8086 assembly language to reverse a string.

Q5 (a) Explain in detail all the modes of 8237 DMA controller. (7)

(b) Subtract the 16 bit number in memory location 2002H and 2003H from the 16 (8)
bit number in memory locations 2000H and 2001H. The most significant eight
bits of the two numbers are in memory locations 2001H and 2003H. Store the

result in memory location 2004H and 2005H with the most significant byte in memory location 2005H.

Q6 (a) What are directives? Also explain various addressing modes in 8086 microprocessor. (7)

(b) Explain 8254 programmable interval timer in detail. (8)

Q7 (a) Explain the architecture of 80386 microprocessor. Also explain the working of (15) Universal Asynchronous Receiver Transmitter.

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