G217A23MA Seat Number: - _____

Duration: 2 1/2Hrs **Marks: - 75**

Note:-

1) All Questions are compulsory

2) Figures to the right indicate maximum marks.

Q1) Attempt any 3 **15 M**

a) Write the function of Co1 (R)

1) Accumulator 2) Program counter 3) Stack Pointer 4) ALU

b) Explain Addressing modes of 8085 Up with example Co1 (U)

c) Write a program to finds 1's complement of the number stored at memory location C200H and stored the complement number at memory location (300H) Co1 (R)

d) Write short notes on microcontroller Co1 (R)

e) Explain the following instructions Co1 (U)

Mov M,R MVI M ADC R Sub M

f) Explain stack structure and operation Co1 (U)

Q2) Attempt any 3 **15 M**

a) Write a short notes on Rotate instructions Co2 (R)

b) Write a program to add two 16 bit number Co2 (R)

c) Explain Call and Return instruction Co2 (U)

d) List the features of 8085 up Co2 (R)

e) Interface 8k of EPROM and 8 KB of RAM using 4KB devices Co2 (R)

f) Write a program to shift 16 bit data by 1 bit to the right . Assume data is in DE register pair. Co2 (R)

Q3) Attempt any 3 **15M**

a) Draw and Explain 8085 interrupt structure Co4 (U)

b) Enlist the feature of 8155 Co4 (R)

c) With neat labeled diagram show how six -7 segment display can be interfaced to 8085 through 8155

d) Compare microprocessor and microcontroller Co1 (R)

e) Write the function with respect to microcontroller Co1 (R)

1) Data Pointer 2) Stack Pointer 3) Timer and Counter 4) Program Counter 5) ALU

f) Explain Timer Mode control (TMOD) special function register Co4 (U)

Q4) Attempt any 3 **15M**

a) Write 8051 C program to monitor port 1 pin 0,. If it is high then make p1=00H, else make part 2 00H Co3 (A)

b) Draw the Architecture of 8051 microcontroller Co2 (R)

c) Explain white box testing. Co2 (R)

d) Explain EDLC phases with proper schematic C02 (U)

e) W.r to microcontroller, Draw control word format of PSW, Enlist the function of each bit Co4 (R)

f) Explain Application Area of embedded system. Co2 (U)

Q5) Attempt any 3 **15 M**

a) Write a program to add the content of memory location 4000H and 4001 H and place the result in memory location 4002 H and 4003H Co3 (A)

b) Write a program to subtract two 8 bit number Co3 (G)

c) Explain the instruction of logical group of 8085 up Co2 (U)

d) Draw and explain minimum system of 8085 Co1 (U)

e) Compare RISC and CISC Co2 (R)

f) Explain P CON SFR'S of 8051 Co4 (U)