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BE V Semester Examination

BE - V/12 (A)

232035

Comp. Engg.

Course No : COM - 503

(Microprocessor 8085)

Time Allowed- 3 Hours *Maximum Marks: 100*

Note: Attempt any **five** questions selecting atleast **two** from each section.

Section - A

1. Draw and explain the architecture and pin description of 8085 in detail. **(20)**

2. a) Write a program in 8085 assembly language to find square of an 8-bit number. **(10)**

   b) Categorize the instruction set of 8085 microprocessor. Support your answer with relevant example in each case. **(10)**

3. a) Explain how information is exchanged between the program counter and the stack. Identify the contents of the stack pointer register, when a subroutine is called. **(10)**

b) Write an 8085 assembly language program to swap the lower and upper nibbles of 10 data bytes stored in memory location XX50H on wards. **(10)**

4. a) What do you understand by vectored interrupts? **(5)**

b) Explain the hardware implementation of RST 5. **(5)**

c) Write an 8085 assembly language program which takes the data from memory location X and multiplies this byte by 4 without using add instruction and stores the result at memory location Y. **(10)**

Section - B

5. What is the difference between 8253 and 8254 ? With the help of block diagram explain 8253 and its modes of operation in detail. **(20)**

6. a) Explain the mode 1 input configuration of 8255 using its control word, control signals, timing diagram and status word. **(10)**

b) Explain and illustrate the ICW formats of 8259. **(10)**

7. a) Design a seven segment LED output port with device address F5H. It is a common anode segment LED. Generate IOW control signal. Write instructions to display digit 5. **(10)**

b) Design a fully decoded scheme to address 16K x 8 of memory using chips of 2K x 8. Derive memory addresses for each chip. (10)

8. a) Illustrate the mode set register format and status word register format of 8237. (10)

b) What is 8279 chip meant for? Draw its functional block diagram. (10)