

Answer any 7 questions

- Q1.) Explain with a diagram about Intel 8086 (16-bit Microprocessor) architecture. [10]
- Q2.) Explain the functional diagram of keyboard and display controller (8279). [10]
- Q3.) (a) Describe the operating modes of 8255A PPI
(b) Specify the bit of Control word for 8255A, which differentiates between the I/O Mode and BSR mode.
(c) List the necessary conditions to generate INTR when port A of the 8255A is set up as an O/P port in mode 1 [10]
- Q4.) (a) Specify the contents of the registers and the flag status as the following instructions are executed:
i.) MVI A,00H
ii.) MVI B,F8H
iii.) MOV C,A
iv.) MOV D,B
v.) HLT
(b) Discuss various types of addressing modes of 8085. [5+5=10]
- Q5.) Intel 80386 is the first 32-bit CPU in x86 family of processors. Describe internal block diagram of 80386 and its operating modes. [10]
- Q6.) Draw the internal block diagram of the Intel Pentium processor and describe its organization. [10]
- Q7.) Write the algorithm and the 8085 assembly language program to arrange an array of data in descending order. [10]
- Q8.) Write the algorithm and the 8085 assembly language program to perform division of two 8 bit numbers. [10]
- Q9.) Write a delay routine to produce a time delay of 0.5 msec in 8085 processor-based system whose clock source is 6 MHz quartz crystal. [10]
- Q10.) With respect to 8085 interfacing draw the circuit diagram of an 8085 system, having a 4KB EPROM and two 8KB RAM ICs. The starting address of the EPROM is 0000H and that of RAM is 8000H. The address of the decoder circuits should be clearly shown. [10]
- Q11.) Explain the operations of 8085 microprocessor for microprocessor initiated operations, bus organization, internal operations and peripheral (or externally initiated) operations. [10]