

Exam.Code:0930
Sub. Code: 6233

1058
B.E. (Electronics and Communication Engineering)
Sixth Semester
EC-607: Advanced Microprocessor (OLD)

Time allowed: 3 Hours

Max. Marks: 50

NOTE: Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Section.

x-x-x

- Q1) (a) Write an example instruction that contains the segment override prefix.
(b) Differentiate between the terms: CPL and DPL.
(c) What is program relocation .
(d) What are the disadvantages of presence of too many scratchpad registers in processors.
(e) What do you mean by the term privileged instructions in 80386.

(2*5)

Section -A

- Q 2) a) Write a program to move 100 words from "FROM" to "TO" which are the two areas in the data segments separated by a 200 byte space . (5)
b) Generate a square wave of frequency 1Khz at the output port with address 78H (5)
Q3) a) Draw a memory system using partial address decoding for 4RAM chips of size 1K*8 each. (5)
b) Write into the base register and count register of channel 1 ,given that 4kb of data are to be transferred from a memory location 13230H to a peripheral using DMA Controller. (5)
Q4) a) Draw the logical block diagram of the 8086 processor and explain each part in brief . (5)
b) There are 10 signed numbers in memory having both positive and negative numbers ,find the largest number among them . (5)

Section -B

- Q5) a) List the enhanced features of 80486 processor w.r.t to previous processors . (5)
b) Draw a multiprocessing system using 8086, 8087 and DMA controller . (5)
Q6) a) Explain the pins of 80386 processor: LOCK, ADS, ERROR, BE0 . (5)
b) Explain the need of protected mode operation and how physical memory is accessed in this mode using the proper diagram. (5)
Q7) a) Draw the timing diagram of 8086 memory read and write cycle in maximum mode .Also draw and explain the function of various signals used in maximum mode. (6)
b) What are the various interrupts of 80386 ? List them . (4)

x-x-x