

Q. P. Code: 36261

[Time: 3hours]

[Max Marks 80]

- 1) Question no. 1 is compulsory
- 2) Solve any three from the remaining five questions.
- 3) Assume suitable additional data if necessary.

Q1) Answer the following questions:

(20)

- a) List the differences between 8086 and 8088 processor.
- b) Explain the feature of pipelining and queue in 8086 architecture.
- c) Explain the significance of /TEST, RESET and MN//MX signals in 8086 processor (/ indicates bar).
- d) List the steps taken by 8086 processor in response to receiving an interrupt.
- e) In 8086 bus cycle, explain the significance of ALE signal.

Q2)a)Classify and explain 8086 instruction set.

(10)

b) Explain in brief 8086-8087 closely coupled configuration system.

(10)

Q3) a) Explain 8086 in its minimum mode of operation.

(10)

b) Explain the following 8086 instructions

i) CMPSB ii) DIV AX iii) LOOPE again iv) REP SCASB v) XLATB

(10)

Q4) a) Write a detailed note on the interrupt structure of 8086 processor.

(10)

b) Explain the need for DMA and modes of DMA data transfer.

(10)

Q5) a) Explain the architecture of 8086 processor. What is the need for memory segmentation.

(10)

b) Explain the need for bus arbitration and various bus arbitration schemes in loosely coupled configuration systems.

(10)

Q6) Write short notes on: [ANY TWO]

a) Programmable interrupt controller – 8259.

(10)

b) Programmable peripheral interface – 8255.

(10)

c) 8086 addressing modes.

(10)