

2006 – MADRAS UNIVERSITY
M.C.A COMPUTER APPLICATION
MICROPROCESSOR

TIMES-3 HOUR
MARKS-80

Answer Any Full Questions

Part A(5*2=10)

1. What is the difference between a CMP instruction and a CMPS instruction in 8086?
2. List the seven string instruction of 8086?
3. What is the function of the BHE control signal in 8086?
4. State the advantage of handshaking over simple parallel I/O.
5. What is cache memory? Why is its capacity small?

Part B(4*5=20)

6. State and explain any two development tools available for writing assembly language programs for 8086.
7. What are assembler directives? State any five assembler directives of 8086 and give their meaning.
8. Distinguish between minimum mode system and maximum mode system of 8086.
9. A interrupt with vector (75) to the base 10 has its service routine written in memory address location 12345 to the base M. show how this is loaded in the interrupt vector table.
10. Explain how handshaking is done. Explain any three handshaking signals used in 8086.

Part C(5*10=50)

11. a) Explain any four standard programs structures used in 8086 with examples.
or
b) Write an assembly language program for 8086 to convert a four digit BCD number stored in the BX register into its binary equivalent and store the result in the DX register.
12. a) Write an assembly language program for 8086 to find from a character string whether the alphabet 'A' occurs. If it occurs store FFFF in AX and if not store 0000 in AX
or
b) What is Macro? With example explain any five features of a macro/
13. a) Describe with a diagram the architecture of the execution unit of 8086.
or
b) Describe with a block diagram the architecture of any one programmable timer/counter.
14. a) Explain with the suitable diagrams how an ADC is interfaced with 8086.
or
b) Describe in detail how a stepper motor is controlled using 8086.
15. a) Explain how an I/O Coprocessor is used with 8080. What are the uses of an I/O Coprocessor
or
b) Bring out the salient features of 80386