



Microprocessor - I (1070)

P. Pages : 2

Time : Three Hours

Max. Marks : 100

Instructions to Candidates :

1. Do not write anything on question paper except Seat No.
2. Answer sheet should be written with blue ink only. Graph or diagram should be drawn with the same pen being used for writing paper or black HB pencil.
3. Students should note, no supplement will be provided.
4. Attempt **any two** questions from each unit.
5. Assume suitable data wherever necessary.
6. Draw the neat & labelled diagram wherever necessary.
7. Figure to the right indicate full marks.

UNIT - I

1. a) Explain following 8086 instructions. 10
i) AAM ii) LDS

b) Given CS = 2100H, DS = 4100H, ES = 6100H, SS = 8100H, 10
BX = 0154H,
DI = 10 ASH, SI = 1B57H, BP = 3480 H
Determine memory addresses accessed by following instructions.
i) MOV AX, [BX + SI + S]
ii) AND CL, [BP + DI]
iii) MOV BL, CS : [BX]
iv) MOV CX, [DI]

c) Explain shifting & rotation instructions of 8086. 10

UNIT - II

2. a) Explain following MASM Directives. 10
i) OFFSET
ii) EXTRN
iii) DUP
iv) GLOBAL

b) Enlist & differentiates Dos & BIOS Interrupts. 10

c) Write on ALP for finding factorial of given number. 10

UNIT - III

3. a) Draw & explain 8259 A PIC block diagram. 10
- b) Explain following signal of 8086.
- i) $RQ|GT_0 - RQ|GT_1$
 - ii) $\overline{BHE} | S7$
- c) Explain following 10
- i) Comparison of 8086 minimum & maximum mode.
 - ii) $S_0 - S_2$ & $QS_0 - QS_1$ signal of maximum mode.

UNIT - IV

4. a) What is decoder ? Explain Full & Block Address decoding. 10
- b) Draw & explain 8237 block diagram. 10
- c) Explain walking bit test & checkerboard algorithm. 10

UNIT - V

5. a) Convert following numbers into short real format. 10
- i) $(5.0)_{10}$
 - ii) $(62.8)_{10}$
- b) Write on ALP to find hypotenuse of triangle using 8087. 10
- c) Explain following term of 8087. 10
- i) F2XM1
 - ii) FWAIT
 - iii) FXAM
 - iv) FFREE
 - v) FIST
