



Microprocessor - III (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** subquestions from each unit.
5. Draw neat diagrams wherever necessary.
6. Assume suitable data if necessary.
7. Figures to the right indicate full marks.

UNIT - I

1. a) Draw and explain functional DIP of 80386. 10
b) Explain in detail EFLAGS register of 80386. 10
c) Explain following instructions of 80386. 10
 - i) JECXZ
 - ii) SETE
 - iii) BSF
 - iv) IMUL
 - v) MOVSX

UNIT - II

2. a) Draw and explain segment descriptor format in detail. 10
b) Explain with neat sketch, how logical address is converted into linear address using segmentation unit of MMU. 10
c) Write short notes on 10
 - i) Real mode
 - ii) VM86 mode

UNIT - III

3. a) Explain in brief 10
 i) CPL
 ii) DPL
 iii) IOPL
 iv) RPL
- b) Explain with neat sketch task switching mechanism of 80386. 10
- c) Write short notes on 10
 i) I/o permission bitmap
 ii) TSS descriptor.

UNIT - IV

4. a) Draw and explain processor of coprocessor interface. 10
- b) Explain in detail exception handling in protected mode. 10
- c) Explain control word register and status word register of 80387 NDP. 10

UNIT - V

5. a) Explain MMX architecture of Pentium processor. 10
- b) Explain internal architecture of Pentium processor. 10
- c) List and explain salient features of Pentium processor. 10
