



Microprocessor & Micro Controller (173104)

P. Pages : 2

Time : Three Hours

Max. Marks : 80

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 if necessary.

UNIT - I

1. a) Draw & explain 8086 programming model. 8
b) Explain following 8086 instructions. 8
 - i) CMP
 - ii) RCR
 - iii) NEG
 - iv) LOOP.
c) Explain macros & procedures in details. 8

UNIT - II

2. a) Draw & explain READ cycle timing diagram for 8086 minimum mode. 8
c) Enlist 8259 A operating modes. Explain any four operating modes of 8259 A. 8
c) Draw & explain 8237 DMAC block diagram. 8

UNIT - III

3. a) Explain interfacing of RAM with 8086 in details. 8
- b) What is address decoder ? Enlist address decoding techniques. Explain block address decoding technique with suitable example. 8
- c) A memory module of 64kB is to be interfaced with 8086 such that address begins from 00000H. Use only 16kB SRAM. Draw memory map, decoder table & decoder design. 8

UNIT - IV

4. a) Explain 8087 Data types with their formats. 8
- b) Explain bus arbitration techniques with suitable diagram. 8
- c) Write an ALP to find area of circle using 8087 instructions. 8

UNIT - V

5. a) Draw & explain block diagram of 8051 microcontroller. 8
- b) Explain the concept of connecting external memory. 8
- c) Draw & explain formats for 8051 PCON & SCON registers. 8
