Instructions :   (1) All questions are compulsory.
         (2) Answer each next main Question on a new page.
         (3) Illustrate your answers with neat sketches wherever necessary.
         (4) Figures to the right indicate full marks.
         (5) Assume suitable data, if necessary.

1. (a) Attempt any **THREE** of the following: **[12]**
    (i) Compare .exe and .com
    (ii) What is RISC processor ? How does it differ from CISC processor?
    (iii) Describe address generation in PVAM mode of 80386 with suitable diagram.
    (iv) Write any four features of Pentium II processor.

   (b) Attempt any **ONE** of the following: **[8]**
    (i) Describe fire state pipelining mechanism of Pentium with neat diagram.
    (ii) Draw the neat labeled architecture of 80386.
    (iii) List any three specific processor extension interface signals of 80386. Also describe the functions of these signals.

2. Attempt the following in brief :   **[16]**
   (a) Draw and explain GDT and LDT in 80386 processor.
   (b) State the instruction latency in RISC processor designing.
   (c) Draw the interrupt vector table of X86 and labeled each field in it.
   (d) How many control registers are present in 80386. State the function of each.
   (e) Compare real mode and protected mode of 80386 (any four points).

3. Attempt any **FOUR** of the following :   **[16]**
   (a) With the help of neat diagram describe the functions of internal blocks of Pentium System Architecture.
   (b) List any four file handling functions of INT 21H. Describe the functions with their syntax and usages.
   (c) Draw the format of flag register of Intel 80386 microprocessor and describe any four salient flags of 80386 microprocessor.

4. (a) Attempt any THREE of the following: **[12]**
    (b) List the system address register 80386 and state their one function each.
    (c) Explain Dos function 01 H (Keyboard Input with echo) and O2 H (display a character on screen) of INT21 H with suitable example.
    (d) What do you meant by Register windowing in RISC processor ?
    (e) List features of sun ultra sparc.

   (b) Attempt any ONE of the following: **[6]**
    (i) Describe the virtual 8086 mode in 386 with neat sketch of memory mapping.
    (ii) Explain paging mechanism in 80386 microprocessor with neat diagram.

5. Attempt any **FOUR** of the following: **[16]**
   (a) Describe the functions of the following pins of 80386. (i) BE0 –BE3 (ii) M/IO (iii) ADS (iv) BS16
   (b) Describe Intel MMX architecture with register set
   (c) Describe interrupts processing sequence in ×86 microprocessor ?

    (d) Write any four advantages of RISC processor.

    (e) List the floating point exception in Pentium.

6. Attempt any **FOUR** of the following: **[16]**

    (a) State the function of Test and debug register of 80386 with the neat diagram.

    (b) What do you meant by hybrid architecture?

    (c) Explain any four floating point exceptions in Pentium processor.

    (d) Compare hardware and software interrupts.

    (e) Explain dos bios interface.

Paper Discussion Schedule for T.Y. Diploma Sem.VI

Date	Day	Timing	Centre
9 April 2017	Sunday	9 a.m. to 11 a.m.	Dadar, Nerul
9 April 2017	Sunday	12 p.m.to 2 p.m.	Thane

❑ ❑ ❑ ❑ ❑