



17627

11718

3 Hours / 100 Marks

Seat No.

--	--	--	--	--	--	--	--

- Instructions :* (1) *All questions are compulsory.*
(2) *Illustrate your answers with neat sketches wherever necessary.*
(3) *Figures to the **right** indicate **full** marks.*
(4) *Assume suitable data, if **necessary**.*

	Marks
1. A) Attempt any three .	12
i) List salient features of 80386 (4 points).	4
ii) List salient features of pentium processor.	4
iii) State features of RISC processor.	4
iv) Describe the function of the following pins of 80386.	4
1) \overline{BS}_{16}	2) \overline{READY}
3) PEREQ	4) $\overline{B_0} - \overline{B_3}$
B) Attempt any one .	6
i) Draw the neat labelled architecture of 80386.	6
ii) Describe the pentium CPU architecture with neat sketch.	6
2. Attempt any four .	16
1) Describe the concept of paging mechanism in 80386.	4
2) State any four advantage of RISC processor.	4
3) Describe the five stage pipeline mechanism.	4
4) Draw and explain interrupt vector table.	4
5) Explain the different types of interrupt in X86.	4
6) Explain with neat diagram DOS – BIOS interface.	4
3. Attempt any four .	16
1) Explain pipeline RISC.	4
2) Describe the virtual 8086 mode in 80386 with neat sketch of memory mapping.	4
3) Explain design issues of RISC processor.	4
4) Explain MMX architecture with register set.	4
5) Difference between real mode and PVAM mode.	4
6) Describe any two operational functions of DOS interrupts.	4

P.T.O.



	Marks
4. A) Attempt any three.	12
i) State the feature of pentium III processor.	4
ii) Describe four level protection in 80386.	4
iii) Define maskable and non-maskable interrupt of X86.	4
iv) Describe any two dedicated interrupts.	4
B) Attempt any one.	6
i) Draw the MSW of 80386 and describe function of each in detail.	6
ii) State diagram of branch prediction logic.	6
5. Attempt any four.	16
1) Explain memory organization with neat diagram of address translation.	4
2) State any four features of SUN-Ultra SPARC.	4
3) Describe the eight stage pipeline mechanism in floating point unit of pentium processor.	4
4) Explain register windowing in RISC processor.	4
5) Describe the general purpose register of pentium.	4
6) Describe interrupt services.	4
6. Attempt any four.	16
1) List any four file handling functions of INT 21H. Describe the functions with their syntax and usages.	4
2) Draw and describe interrupt descriptor table of 80386.	4
3) State the instruction latency in RISC processor designing.	4
4) Explain the register organization of 80386 microprocessor.	4
5) Differentiate between •COM and •EXE programs.	4
6) Write the advantages of separate code and data cache available in pentium.	4
