17627

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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.

(5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Answer any FIVE of the following: **20**

a) State the salient features of 80386.

b) Distinguish between LDTR and GDTR.

c) Explain branch prediction in pentium.

d) Explain the RISC processor.

e) State the priority interrupts of 80286.

f) Describe any four DOS interrupts.

g) State any four difference between · COM and · EXE program.

2. Attempt any FOUR of the following: **16**

a) Explain the super scalar execution of pentium processor.

b) Describe debug and test registers of 80386 microprocessor.

c) Explain with neat diagram DOS-BIOS interface.

d) Describe the basic features of RISC processor.

e) Give important features of sun ultra SPARC.

P.T.O.

Marks

3. Attempt any TWO of the following: **16**

a) Illustrate with diagram the concept of virtual 8086 environment memory management.

b) Explain with the help of neat diagram the memory organization of 80386.

c) Explain the hybrid architecture (i.e. RISC and CISC) of processors.

4. Attempt any FOUR of the following: **16**

a) Draw the architecture of pentium processor.

b) Explain the concept of separate code and data cache memory in pentium processors.

c) Describe enabling and disabling of paging in 80386.

d) Which function is used to "Delete file"? Explain in detail with example.

e) Explain the structure of MS-DOS with respect to its layers.

f) Explain floating point exceptions.

5. Attempt any FOUR of the following: **16**

a) State the functions of the following pins of 80386 μp (microprocess)

(i) $\overline{BE_0} - \overline{BE_3}$

(ii) $\overline{BS_{16}}$

(iii) $D/\overline{C}$

(iv) $\overline{ADS}$

b) List any four difference between real addressing mode and protected virtual (PVAM) addressing mode of 80286.

c) State any four salient features of pentium.

d) Explain non-maskable interupts.

e) Explain pentium pro-processor.

f) Explain design issues of RISC processors.

Marks

6. Attempt any TWO of the following: **16**

a) Describe the eight stage pipeling mechanism in floating point unit of pentium.

b) Describe the loading sequence of MS-DOS in memory with neat sketch.

c) Draw and explain the internal architecture of 80386.

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