

VT-F.H.Exam. May-13-14

Con. 7352-13.

GS-9933

(3 Hours)

[Total Marks : 100

- N.B. :** (1) Question No. 1 is **compulsory**.
 (2) Attempt any **four** questions out of remaining **six** questions.
 (3) Draw **neat** labelled **diagram** wherever **necessary**.
 (4) Answers to **each** new questions to be started on a **fresh page**.

1. (a) Draw the block diagram of 80386 DX processor and explain each block in brief. 10
 (b) Differentiate segmentation in real mode and in protected mode. 5
 (c) Discuss the register set of 80386 processor. 5
2. (a) What are the different types of instruction Hazards ? Explain in detail. 10
 (b) Draw and explain Pentium processor architecture. 10
3. (a) Explain dynamic branch prediction logic of Pentium processor. 10
 (b) Explain different stages of Integer pipeline and floating point pipeline of Pentium processor. 10
4. (a) Compare Super SPARC and Ultra SPARC processor. Draw and explain in brief the architecture of Super SPARC. 10
 (b) Explain the Itanium processor with respect to instruction format, core pipeline stages and the functionality. 10
5. (a) Explain the Cache Organization of Pentium processor. 10
 (b) Draw and explain the state diagram of MESI transitions that occur within the Pentium's data Cache memory. 10
6. (a) Explain EFLAGS bits of Pentium. 10
 (b) State the features of PCI bus. Draw a work station based on PCI bus and explain. 10
7. Write a short note on (any two) :- 20
 - (a) Layered architecture of SCSI
 - (b) USB
 - (c) VESA.