

**(OLD COURSE)****QP Code : 4323**

Time 3 Hrs

Max. Marks 100

- Note: 1) Question no. 1 is compulsory  
 2) Answer any four from Q.2 to Q.7  
 3) Draw diagram wherever necessary.

- Q.1 a) Explain flag register of 80386. 10  
 b) Write instruction pairing rules and instruction issue algorithm in case of Pentium. 10
- Q.2 a) Draw protected mode address translation mechanism in 80386 with neat flow diagram. Explain Page translation in detail. 10  
 b) Explain the architecture of Pentium IV processor 10
- Q.3 a) Draw the block diagram of Itanium processor. Also explain its salient features. 10  
 b) Explain how flushing problem is minimized in Pentium Processor. 10
- Q.4 a) Differentiate between real mode and protected mode. 10  
 b) Draw and explain code cache organization of Pentium. 10
- Q.5 a) List the important features of Pentium – III processor. Differentiate between Pentium – II and Pentium – III. 10  
 b) Explain PCI workstation. 10
- Q.6 a) Draw state transition diagram and explain different states used in state diagram. 10  
 b) State and explain operating modes of x86 family of processors. Show the mode transition diagram highlighting important features. 10
- Q.7 Write short note on 20  
 a) Structure of segment descriptor  
 b) Data types supported by SPARC  
 c) 8 bit, 16 bit ISA bus  
 d) Layered architecture of SCSI