

Con/5138-07.

BB-7434

( 3 Hours )

[ Total Marks : 100

**N.B. :** (1) Question No. 1 is **compulsory**.(2) Attempt any **four** out of remaining questions.(3) Make assumptions if any **clearly**.

1. (a) Explain "WRITE ONCE" policy as implemented in pentium processor with examples. (Assume that L2 cache is present). 12
- (b) Explain, with neat diagram, pentium state transitions. 8
2. (a) Explain, how communication of 8-bit device is accomplished with pentium. (Support your answer with neat diagrams). Also explain the working of read cycle. 15
- (b) Explain Functional Redundancy check feature of pentium. 5
3. (a) Draw the timing diagram of pipelined burst bus cycles of pentium. 10
- (b) Is the branch prediction useful ? Explain the working of the branch prediction logic in pentium. 10
4. (a) Explain Interrupt chaining process in PCI bus. 10
- (b) Draw and explain, PCI write transaction with wait states. 10
5. (a) Explain, how Green machine concept is achieved in PCI. (Give all the means). 10
- (b) Explain Reflected wave switching as applied to PCI bus. 10
6. Give some practical applications of RTOS. Explain how QNX satisfies the required features for RTOS. 20
7. (a) Explain various types of data transfers on USB. 10
- (b) Explain USB bus protocols. 10