

UNIT - V

5 (a) Design a parallel priority interrupt hardware for a system with eight interval sources. 8

(b) Why does DMA have priority over the CPU when both request a memory transfer ? 8

OR

5 (a) List the advantage and disadvantage with respect to program design complexity, IO bandwidth, and interface hardware costs for the following IO control methods.

(i) programmed IO

(ii) DMA

(iii) IOPs. 6

(b) Why are the read and write control line in a DMA controller bidirectional ? Under what condition and for what purpose are they used as inputs ? Under what condition and for what purpose are they used as outputs ? 10

