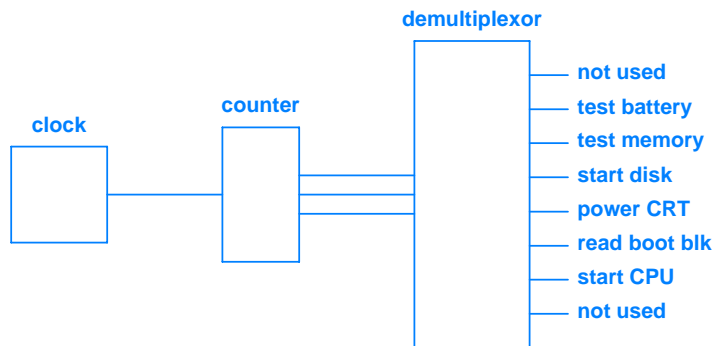


Figure 2.14 Illustration of a demultiplexer with three input lines and eight output lines. When inputs x, y, and z have the values 0, 1, and 1, the fourth output from the top is selected.

A demultiplexer provides the last piece needed for our simplistic sequencing mechanism if we combine a clock, counter, and demultiplexer, the resulting circuit can execute a series of steps. For example, Figure 2.15 shows the interconnection in which the output of a clock is used as input to a binary counter, and the output of a binary counter is used as input to a demultiplexer.



that performs a sequence of six steps. Output lines from the counter connect directly to input lines of the demultiplexer."