



UCL Department of Computer Science
CS M038/GZ06: Mobile and Cloud Computing
2010–2011, Term 2
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One-pager: The Viterbi Algorithm (Forney, Jr., 1973) Due: Start of lecture, 4th March 2011

Instructions: *in your own words*, answer the following questions as **succinctly** as possible (in 200–500 words total, but shorter answers within this range are encouraged). Quoting figures or text from the assigned reading or from any other source is specifically prohibited.

Given input bits **10100**, what bits would the convolutional encoder shown in Figure 3 output?

This convolutional encoder corresponds to the state machine shown in Figure 7 (top). Draw the path that the convolutional encoder takes through the trellis. Your diagram should look like Figure 7 (lower), only with edges (*aka branches*) forming one path through the trellis of length equal to the number of input bits.