Notebook Screen Capture

Part a: *K* = 5 Rate 1/2 Code

In this first part you will create a fec_conv object for the $K = 5$ code of Table 1. You will create a BEP plot similar to that found on page 7-41 of the Chapter 7 (text Chapter 12) notes. Note: You will need to increase D to about $5 \times 5 = 25$. Unlike the notes example, your results will be for soft-decision decoding. Functions for computing soft decision decoding upper bounds are contained in the module fec_conv.py. In addition to the BEP plot, also provide the trellis plot and a traceback plot under low and high SNR values.

```
In [5]: # Instantiate a fec_conv coder/decoder object
        cc1 = fec.fec_conv(('10011', '11101'), 25)
        cc1.trellis_plot()
```

Note: 2^{K-1} = 16 states.
Blue transitions for '0' input bit
Green transitions for '1' input bit