Oppgave 3

a) Outdata changes after 3 clock cycles. This is because data1, data3 and data5 are signals while data2 and data4 are variables. The variables are updated immediately.

b) The outdata signal changes at 750ns.

Outdata is ”UUUUUUUU” at 50ns because the rst_n is set to 1 at 100ns thus Outdata is uninitialized.

c) outdata(7 downto 6) is always equal to outdata(3 downto 2) because they use same signal. Even though sig1 and sig2 are assigned different values in the process, the change is registered when the process ends and thus the last value assigned is what the outdata(7 downto 6) and outdata(3 downto 2) holds.

outdata(5 downto 4) is always not equal to outdata(1 downto 0) because they are assigned variables that change and invert values immediately in the process leading them to be not equal.

d) When sig1 and sig2 are removed from the sensitivity list, the process is awakened or triggered by change in inndata. The variables change values immediately but the signals do that on termination of the process.