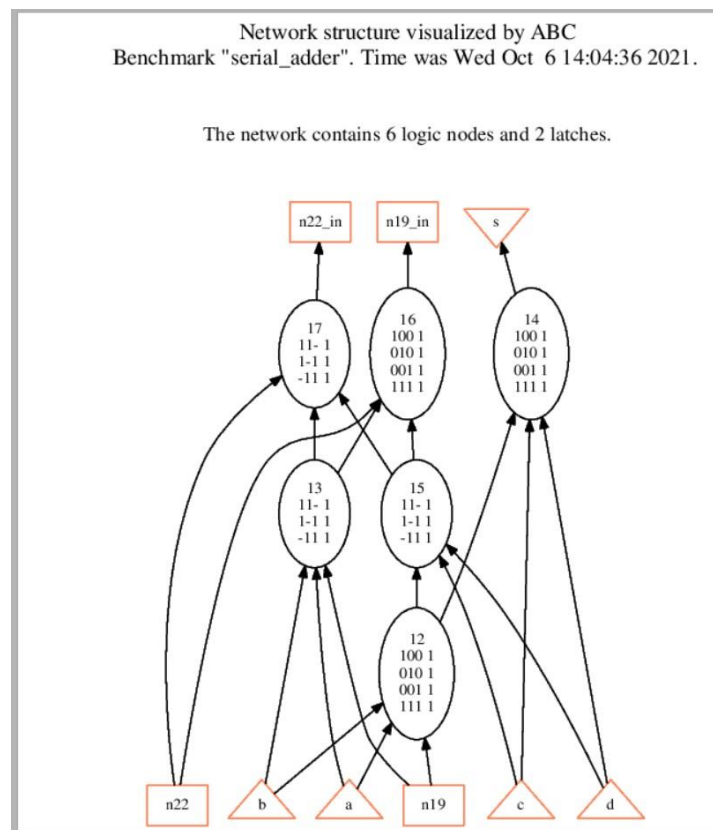
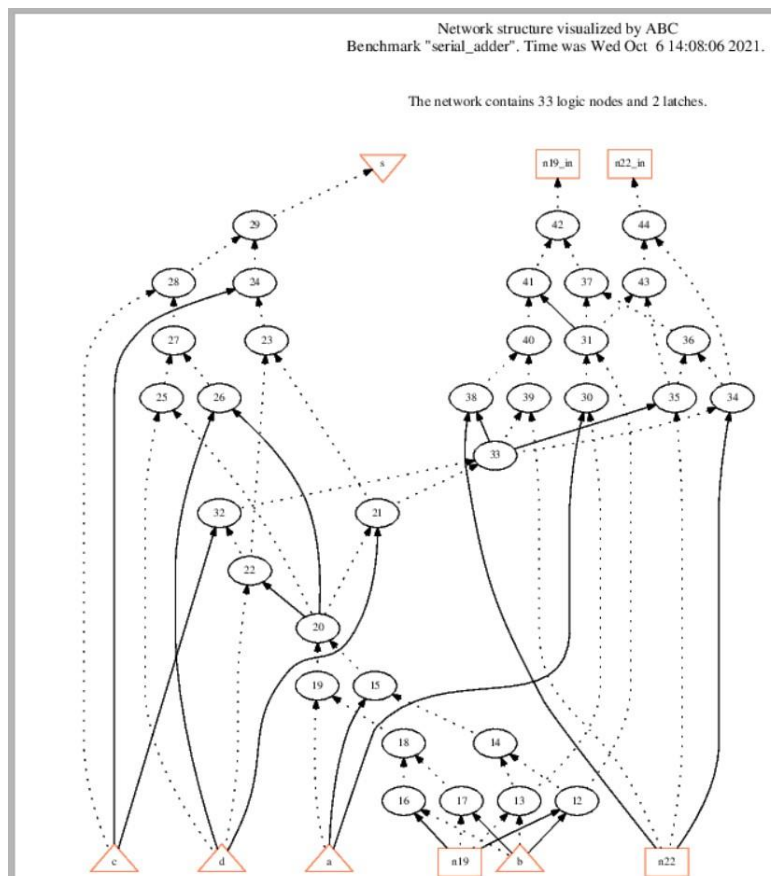


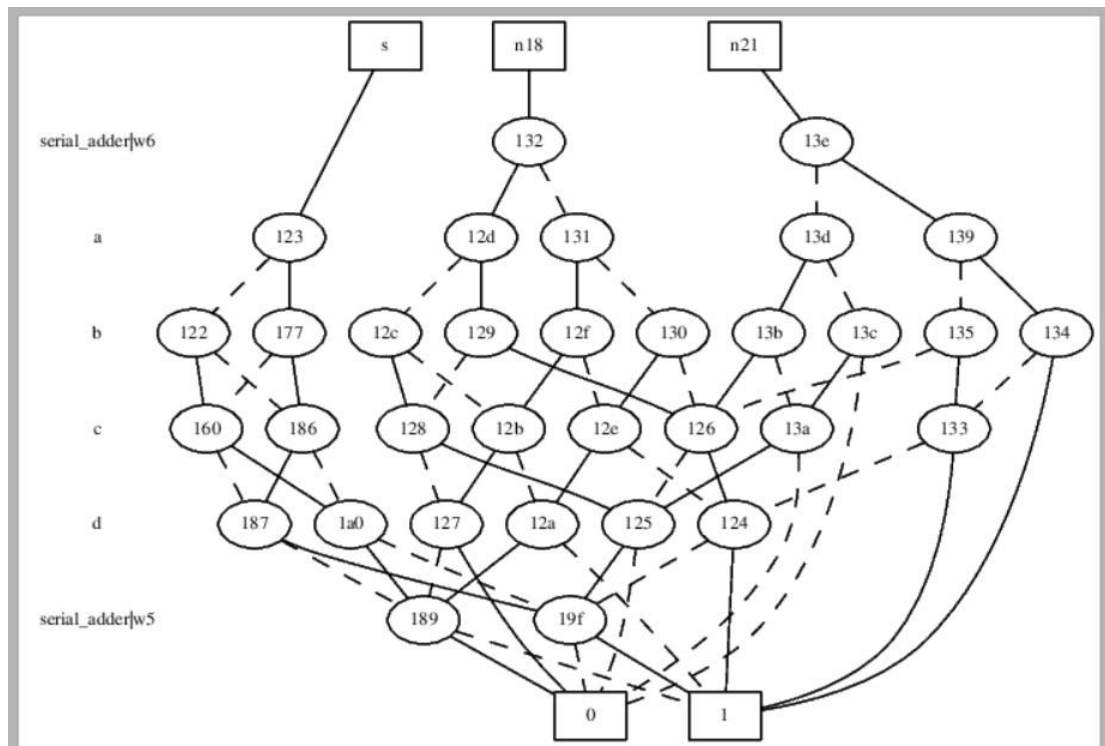
1.(b)3.



1.(b)5.



1.(b)7.



2.(a)

logic network in AIG (by command aig) vs. structurally hashed AIG (by command strash)

Command **aig** converts local networks of the nodes to AIGs while command **strash** transforms the global network into an AIG by one-level structural hashing. So **strash** will result in more **lev(lev=11)** when compared to **aig(lev=3)** in **print_stats**.

logic network in BDD (by command bdd) vs. collapsed BDD (by command collapse)

Command **bdd** converts local networks of the nodes to BDDs while command **collapse** transforms the global networks into BDD. But **bdd** will result in more **lev(lev=3)** when compared to **collapse(lev=1)** in **print_stats** because **print_stats** show the results corresponding to network structures rather than BDD. The primary outputs and latch inputs are produced by a node, whose fanins are primary inputs and latch outputs when using the command **collapse**.

2.(b)

Given a structurally hashed AIG, find a sequence of ABC command(s) to covert it to a logic network with node function expressed in sum-of-products (SOP)

Instructions: logic => sop