1. How many flips flops are needed to construct a counter to count 1,000 items?

10

2. Which options make a Binary Up-down Counter?

An Adder and A Subtractor

3. Which option is the next in the sequence for a â€œ4-bit ring counterâ€☐ with its current state at 0010?

0100

4. How do we make the D-latch remember the current value?

Create another feedback loop

5. Which option is equivalent to Y?

A â—☐ B â—☐ C

6. Which counter has the clock inputs of all the flip-flops are tied together so that the input clock signal may be applied simultaneously to each flip-flop?

Synchronous Counter with Parallel Carry

7. Which option is the next in the sequence for a â€œ3-bit gray-codeâ€☐ with its current state at 010?

110

8. Which option is equivalent to Y?

A â—☐ B â—☐ C

9. Which type of networks are Counters?

Sequential networks

10. Which circuit offers the simplest option for building an asynchronous counter?

S-R flip-flop