

Flip-Flops HW

Date

: _____

True or False

1. (T) (F) 1. Flip-flops are circuits which exists in one of two states and so can store
2. information.
2. (T) (F) 3. Flip-flops are devices made out of digital logic gates that use feedback to
4. store or switch states
3. (T) (F) 5. The 4 basic flip flops are RS, D, Toggle and JK.
4. (T) (F) 6. The 4 basic modes of operation for flip-flops are Set, Reset, Toggle, and
Hold.
5. (T) (F) 6. All flip-flops have 2 inputs and 2 outputs.
6. (T) (F) 7. Flip-flops with Preset and Clear have the flexibility to operate in either
asynchronous or synchronous modes.
7. (T) (F) 8. To operate in asynchronous mode, a flip-flop requires a Clk to allow the flip-
flop to change states.
8. (T) (F) 9. The 2 outputs of a flip-flop are Q and its compliment.
9. (T) (F) 2. To operate in synchronous mode, a flip-flop uses only Preset and Clear to
3. change states.
10. (T) (F) 4. Synchronous mode allows multiple flip-flops to change states
5. simultaneously.
11. (T) (F) 10. When an flip-flop is Set, its Q output is 1.
12. (T) (F) 6. Hold mode is when the flip-flop output Q remains at its previous state.
13. (T) (F) 7. JK flip-flops are the favorite for memory circuits.
14. (T) (F) 11. Toggle mode is when the flip-flop output Q switches to its opposite state
when a Clk is applied.
15. (T) (F) 12. D flip-flops are the favorite for counter circuits.

