Total: / 20   Name: Period:

CSEE Quiz : Introduction to digital Circuits

a) Multiple Choice

1. A square wave is an example of a(n) (Digital/ Analog) _____ signal

2. Most "real world" measurements (like temperature, speed, pressure, etc.) are _____ (analog, digital) in nature.

3.   Electronic devices that can be programmed and have alphanumeric displays probably contain _____ (analog, digital) circuitry.

4. A(n) _____ (astable, monostable, Bistable) multivibrator is an electronic device that generates a continuous string of digital pulses. It may also be   called a clock or a freerunning MV.

5. A(n) _____ (bistable, monostable, Astable) multivibrator is an electronic device that has two stable states. It is also called a flip-flop and is used as a latch to hold data.

6. A(n) _____ (astable, monostable, Bistable) multivibrator is an electronic device that is sometimes called a oneshot MV.

7. An input voltage of +1V to a CMOS IC (+10V supply) would be considered a _____ (H, L, undefined) logic level.

8.   An input voltage of +9V to a CMOS IC (+10V supply) would be considered a _____ (H, L, undefined) logic level.

9.   An input voltage of +1.5V to a TTL IC (+5V supply) would be considered a _____ (H, L, undefined) Logic level.

10.instrument for detecting HIGH, LOW, and Undefined digital logic levels is called a _____ (logic analyzer, logic probe).

11. In the lab, a simple LED indicator circuit can be built   using a _____ (transistor, voltage comparator) to drive the LED defined) logic level.

12. If the input to a logic probe is 50Hz square wave, the output would _____ (read HIGH, toggle between HIGH and LOW)

b) Check if the statement is true

13. Analogue representation gives a discrete output and digital presentation produces an analog output .

14. An example of the A stable multi vibrator is the (Latch) Flip Flop

15. A specific characteristic of multi vibrators is the use of passive elements like a resistor and a Capacitor.

16. Logic levels between the low and high levels are defined region with unpredictable results.

17. The two most popular IC (Integrated Circuits) types are the (Transistor Transistor logic) and (Common Field Effect Transistor)

18. The numerical values are mostly represented using binary numbers.

19. Surface mount technology (SMT) is a method for producing electronics circuits in which the components are mounted or placed directly onto the surface of printed circuits boards.

20. Logic levels are usually represented by the voltage difference between the signal and ground .