

- 1). In which one of the following circuits both output and input will be in analog format?
a) Analog b) Digital c) Both a and b d) None of the above
 - 2). In which one of the following circuits the input is analog and the output is digital or the input will be digital and the output will be analog?
a) Analog b) Digital c) Mixed d) None of the above
 - 3). Which one of the following is a type of electronic circuit?
a) Analog b) Digital c) Both a and b d) All of the above
 - 4). The diode is a semiconductor device which is made of _____ type of materials
a) One b) Two c) Three d) Four
 - 5). Which one of the following signals is a continuous and naturally occurring or physically occurring signal?
a) Analog signal b) Digital signal c) Both a and b d) None of the above
 - 6). In which material will have an excess of holes?
a) P-type b) N-type c) Both a and b d) None of the above
 - 7). In which material will have an excess of electrons?
a) P-type b) N-type c) Both a and b d) None of the above
 - 8). In how many ways does the diode can operate?
a) One b) Two c) Three d) Four
 - 9). What are the applications of diodes?
a) Rectifiers b) Clippers c) Clampers d) All of the above
 - 10). The S-R flip flop consist of _____
a) 4 AND gates b) Two additional AND gates c) An additional clock input d) 3 AND gates
 - 11). What is one disadvantage of an S-R flip-flop?
a) It has no Enable input b) It has a RACE condition c) It has no clock input d) Invalid State
 - 12). How is a J-K flip-flop made to toggle?
a) $J = 0, K = 0$ b) $J = 1, K = 0$ c) $J = 0, K = 1$ d) $J = 1, K = 1$
 - 13). In J-K flip-flop, "no change" condition appears when _____
a) $J = 1, K = 1$ b) $J = 1, K = 0$ c) $J = 0, K = 1$ d) $J = 0, K = 0$
 - 14). What does the direct line on the clock input of a J-K flip-flop mean?
a) Level enabled b) Positive edge triggered c) negative edge triggered d) Level triggered
 - 15). Flip flop is at 'set' state when outputs Q and Q' are respectively
a) 1 and 0 b) 0 and 1 c) 1 and 1 d) 0 and 0
 - 16). D flip flop contains output that are
a) complement b) similar c) infinite d) zero
 - 17). Flip flop is at 'reset' state when outputs Q and Q' are respectively
a) 1 and 0 b) 0 and 1 c) 1 and 1 d) 0 and 0
 - 18). Sequential circuits require a
a) timing motors b) timing transformers c) timing generators d) timing flips
 - 19). Circuit which has a feedback is
a) combinational circuit b) sequential circuit c) systematic circuit d) correctional circuit
 - 20). Circuit which has two stable states are termed as
a) combinational circuit b) bistable circuits c) unit stable circuits d) tri stable circuits
 - 21). Flip flop is considered set when it stores
a) logic 1 b) logic x c) logic z d) logic 0
- Logic circuits which don't have memory are
a) combinational circuit b) sequential circuit c) systematic circuit d) correctional circuit
- Logic circuits that incorporate memory are called
a) combinational circuit b) sequential circuit c) systematic circuit d) correctional circuit

In order to obtain a P-type germanium, the germanium should be doped with aimpurity

- A.Trivalent B.Tetravalent C.Pentavalent D.Any of the above

For a germanium P-N junction, the barrier potential is nearly.....

- A.0.15 V B.0.3 V C.0.45 V D.0.6 V

For a silicon P-N junction, the barrier potential is about

- A.0.7 V B.0.8 V C.0.9 V D.1.0 V

The crystal diode is used as a

- A.Rectifier B.Amplifier C.Oscillator D.Any of the above

Which of the following is a passive component?

- A.Vacuum tube devices B.Capacitors C.Semiconductor devices D.All of the above

A room temperature P-type material will have....

- A.More of electrons B.More of holes C.Equal number of electrons and holes

Which of the following elements belong to the same group of periodic tables as that of silicon and germanium

- A.Phosphorous B.Carbon C.Sodium D.Boron

The switching speed is high in _____ diode

- Schottky diode PN diode Both a and b None of the above

The reverse leakage current is _____ in Schottky diode

- a) High b) Low c) Very high d) Moderate

Choose the SI unit of electric potential energy:

- (a) Joule (b) Coulomb (c) Newton per coulomb (d) Erg

A D flip-flop is constructed by connecting an inverter between the SET and clock terminals.

- a) True b) False

Pulse-triggered or level-triggered devices are the same.

- a) True b) False

A flip-flop is in the CLEAR condition when $Q = 1, \bar{Q} = 1$.

- a) True b) False

Some flip-flops have invalid states

- a) True b) False