

Q. Power diode is generally made from

- a) Silicon
- b) Germanium
- c) Both
- d) None of these

Q. When the both junction of NPN diode is reverse biased, then the diode is in which mode

- a) Active
- b) Cutoff
- c) Saturation
- d) inverted

Q. Which transistor mode gives the inverted output

- a) Common Emitter
- b) Common Base
- c) Common Collector
- d) None of these

Q. Which coupling gives the higher gain in case of amplifier

- a) Capacitor coupling
- b) Impedance coupling
- c) Transformer coupling

Q. Which distortion is least objectionable in audio amplification

- a) Phase
- b) Frequency
- c) Harmonic
- d) Intermediation

Q. A narrow band amplifier has a band pass nearly.....of central frequency

- a) 33.3%
- b) 10%
- c) 50%

Q. Phase shift oscillator consists

- a) RL
- b) RC
- c) RLC

Q. Multivibrator Produces

- a) Sine wave
- b) Square wave
- c) Smooth wave
- d) sawtooth

Q. Convert the 101101 Binary number into octal no

- a) 65
- b) 55
- c) 51
- d) 45

Ans: 55

Q. 10 in BCD

- a) 10100
- b) 1100
- c) 010111
- d) None of these

Ans: None of these

Q. Which PNP device has a terminal for synchronizing purpose

- a) SCS
- b) Triac
- c) Diac
- d) SUS

Q. Addition of indium in semiconductor crystal makes

- a) PNP
- b) NPN

Q. Free electron exists in which band

- a) 1
- b) 2
- c) 3
- d) Conduction band

Q. Ripple factor of half wave rectifier

- a) 1.21
- b) 0.48
- c) 0.5

Q. Transistor that can be used in enhancement mode

- a) NPN
- b) UJT
- c) JFET
- d) MOSFET

Q. Following contributes to harmonic distortion in Amplifier

- a) +Ve feedback

- b) –Ve feedback
- c) Defective active device

Q. High cutoff frequency

- a) CB
- b) CC
- c) CE

Q. Which is used as data selector?

- a) Encoder
- b) Decoder
- c) modulator
- d) Demodulator

Q. Read write capable memory

- a) RAM
- b) ROM
- c) Both
- d) None of these

Q.the radix or base of hexadecimal number system is _____

- a) 8
- b) 16
- c) 5
- d) none of these

Ans: 16

Q.the no of 1's in the binary representation of the expression $162 \cdot 9 + 162 \cdot 7 + 16 \cdot 5 + 3$ are

- a) 10
- b) 23
- c) 6
- d) 4

Q. the no of latches in F/F are _____

- a) 1
- b) 2
- c) 3
- d) 4

Q.how many flip-flops are required to construct Mod -12 counter

- a) 5
- b) 4
- c) 12
- d) none

Ans: 4

Q. which logic gate has the output is compliment of its input ———-

- a) OR
- b) AND
- c) NOT
- d) X-OR

Ans: NOT

Q.no.of 2-input multiplexers needed to construct a 210 input multiplexer.....

- a) 12
- b) 31
- c) 20
- d) 16

Q.By adding inverters to the inputs and output of a AND gate we can obtain

- a) OR
- b) AND
- c) NOT
- d) X-OR

Ans: X-OR

Q.how many NAND gates are needed to realize OR gate ———-

- a) 1
- b) 2
- c) 3
- d) 4

Ans: 3

Q.which is the first integrated logic family ———-

- a) RTL
- b) DTL
- c) TTL
- d) none of these

Q. Which logic gate has output high if and only if all inputs are low ———?

- a) NOR
- b) NAND
- c) X-NOR
- d) AND

Ans: NAND

Q. According to Boolean algebra $1+A+B+C =$

- a) A
- b) $A+B+C$
- c) 1
- d) none of these

Ans: 1

Q. If $a=0x6db7$ and $b=0x2ae9$ then what is the value of $a \oplus b$ —————

- a) binary number for 1001.1101?
- b) decimal number for 19?
- c) excess-3 code for 29?

Q. what is the value of $A' + 1$?

- a) A
- b) A'
- c) 1
- d) none of these

Ans: 1

Q. 2 in 4 bit number one bit indicates sign of the number then the locations are from

- a) -8 to 8
- b) -7 to 7
- c) -16 to 16
- d) None

Q. Avalanche photo diode is used when compared to PIN diode bcz

- a) larger band width
- b) high sensitivity
- c) ———
- d) ———

Q. some non zero DC voltage is to RC low pass circuit then the DC voltage in the output contains

- a) Same as in input
- b) Higher than input
- c) Zero
- d) Slightly increases

Q. if the output of the gate is always high then the gates applied to this logic are 0,0

- a) NAND and EX-NOR
- b) NAND and NOR
- c) AND and X-NOR
- d) OR and XOR

Ans:a

Q.Thermal Run away is not possible in FET bcz the flow of

- a)minority careers
- b)Transconductance
- c)_____
- d)none

Ans : minority careers

Q.which of the following is/are true about 1's and 2's compements:

- i)In 1's complement form. 0 has two representations
- ii)in 1's complement, the magnitude of lowest number is equal to the magnitude of highest number
- iii)In 2's complement, 0 has two representations

- a) i only
- b) i and ii
- c) iii only
- d) all of these

Q.In the hybrid parameter model of a transistor reverse transfer voltage ratio and forward transfer current ratio are respectively given by:

- a) h_{11} and h_{21}
- b) h_{12} and h_{11}
- c) h_{21} and h_{11}
- d) None of these

Q.The largest negative no can be represented with 8 bits in 2's compliment representation?

- a)-256
- b)-255
- c)-127
- d)-128

Ans: -128

Q. How many NAND gates required to implement $AB+CD+EF$

- a) 1
- b) 2
- c) 3
- d) 4

Ans: 4

Q. Transparent latch is seen in which type of flip flop

- a) SR FF
- b) D FF
- c) JK FF
- d) D FF

Ans: D FF

Q. Odd parity generator uses which logic?

- a) Digital
- b) Analog
- c) Sequential
- d) none

Q. Which type of ADC is fastest?

- a) SARC
- b) Counter type
- c) Integrated type
- d) Flash

ANS: Flash/Parallel

Q. Which one of the following is fastest read/writable memory?

- a) PROM
- b) EEPROM
- c) Flash
- d) none

Ans: Flash

8. In array programming which one is used

- a) SISD
- b) PISD
- c) MISD
- d) None

Q. Which one of the following has high I/p impedance

- a) CC
- b) CB
- c) CE
- d) None

Q. The maximum time allowed time for each flip flop for a mod 10 synchronous counter if each flip flop delay is 25ns.

- a) 25 ns
- b) 50 ns

- c) 100 ns
- d) none

Q. The resolution for a DAC is given by 0.4% then no. of bits of DAC is

- a) 8- bits
- b) 16- bits
- c) 32- bits
- d) none

Ans: 8- bits

41) The chip capacity is 256 bits, then the no. of chips required to build 1024 B memory is

- a) 32
- b) 16
- c) 15
- d) 4

Q. Which of the following are correct?

- 1) A flip-flop is used to store 1-bit of information
- 2) Race around condition occurs in JK flip flop when both the inputs are 1
- 3) Master slave flip flop is used to store 2 bits of information
- 4) A transparent latch consists of a D- flip flop

- a) 1,2,3
- b) 1,3,4
- c) 1,2,4
- d) 2,3,4

Ans: 1,2,4

Q. output resistance of ideal OP AMP is

- a) 0
- b) 1
- c) infinite
- d) very high

ANS: 0

Q. CMRR of an OP AMP is given as 80db and A_d is 20000. Value of A_{cm} will be

- a) 4
- b) 8
- c) 2
- d) 1

Ans: 2

Q.Si,Ge lie inblock of periodic table

- a) III
- b) V
- c) IV A
- d) IV B

Ans: IV A

Q.to obtain 10 mV resolution on 5 V range how many bit DAC is to be used

- a) 4
- b) 8
- c) 16
- d) 32

Q.% resolution of a 10 bit ADC

- a) 1.588%
- b) 0.392%
- c) 0.0978%
- d) 0.0244%

Ans: 0.0978%

Q.Efficiency of half wave rectifier

- a) 45%
- b) 50%
- c) 86%
- d) 100%