December Placement Paper Free download pdf Previous year Papers for Students NPCIL NPCIL ET Electronics Question Paper 2011 Model Paper with answers

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) Transformercoupling

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. Multivibrater 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*9+162*7+16*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"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) h11 and h21
b) h12 and h11
c) h21 and h11
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) Intigrated 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 Ad is 20000.Value of Acm will be
a) 4
b) 8
c) 2
d) 1

Ans: 2

Q.Si,Ge lie in ……..block of periodic table
a) III
b) V
c) IV A
d) IV B