DELIGHT CONCEPT

COURSE CODE: CIT292

COURSE TITLE: COMPUTER LABORATORY I

The ------- principle states that if a boolean expression is 'True', then, its dual is 'True'

system

duality

binary

data

When counting in octal, the number after 7 is …….

0 to 7

8

9

10

Since octal is base-8, hexadecimal is base --------

14

16

18

12

When specifying a function, we usually start with product term that contain all …..

functions

variables

minterm

1-minterm

We use the notation 0-minterm to mean …….

1-minterm

0-minterm

minterm

zero-minterm

The label "inverted dual" means applying the ------- principle

inverse

formats

duality

function

We use the notation 1-minterm to denote ……

term

one-minterm

0-minterm

All minterm

A boolean variable is a quatity that may, at different times, be equal to either ……

1 and 1

0 or 1

1 or 1

0 and 1

Boolean …… is a tool for the analysis and design of ditigal system

arithmetic

geometry

algebra

surds

Truth tables for the three basic logical operators are ……., OR and NOT

ANB

AND

ANM

ANW

We write inputs values in the normal binary…… order

serial

system

counting

ascending

When dealing with dealing with binary values, each input can be either …….

a 1 and a 0

a 1 or a 1

0 or a 0

a 0 or a 1

The NOT operator is also know as the ……...

octal

truth

inverter

boolean

The NOT gate, OR gate and AND gate are three main types of ----------

computer

digital gate

logic gates

All gates

The ------- principle states that if a boolean expression is 'True', then, its dual is 'True'

system

duality

duolity

truth

When counting in octal, the number after 7 is …….

0 to 7

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Since octal is base-8 and hexadecimal is base --------

14

16

18

12

The use of ---------- is quite familiar to us

binary

digit

decimal

a bit

To build ------ devices that can process these values accurately is next to impossible

world

analog

digital

system

-------- circuits deal with binary values

binary

truth table

Boolean

inputs

A combinational circuit can be described precisely by …….

operations

truth table

function

symbols

------ circuits whose outputs are dependent on not only the current input

gate

combinational

boolean

sequential

------- circuit are dependent only on the current inputs

electric

combinational

system

gate

We use special logic ---------- to denote the gates

signs

arrows

symbols

directions

In drawing digital circuit diagrams are also called ----------

symbols

inverter

schematics

gate

The name -------- comes from the fact that these devices operate like a door

or gate

gate

window

system

----- is a circuit that operates such that its output is high only when all input are high

or gate

AND gate

NOT gate

all gate

There are basically the AND gate, OR gate and NOT gate also known as ----------

logic gates

inverter

all gates

system gates

--------- are the actual phyiscal implementations of logical operators

truth table

logic gates

gates

binary gates

……. theorems are extremely useful in simplifying expression

Boolean

barth

DeMorgan

Nneji

Two of the most important theorems of boolean algebra were contributed by …….

Morgan

Onashoga

JP Morgan

DeMorgan

Boolean algebra is a tool for the analysis and design of --------- system

binary

digit

digital

computer

The NAND gate is formed from the combination of the AND gate and_____connected in series

OR

NOR

XOR

NOT

The most important memory element is the flip-flop, which is made up of an assembly of_____

NOR gate

OR gate

logic gates

AND gate

The output of the MOD-6 counter in the MINUTES section has a frequency of_____

1 pulse per min

1 pulse per hour

1 pulse per sec

2 pulse per sec

If we connect two switches in parallel, this gives rise to the logical_____ operator

NOR

NOT

AND

OR

When the hours counter reaches 12, it will be reset to zero by the_____gate

AND

NAND

NOR

OR

A Bistable element is the simplest _____circuit

Processing

Control

Storage

Inverting

The binary number 1000001010 equals _____ in decimal

522

520

500

501

The K-map is a_____array of squares.

1-dimensional

2-dimensional

3-dimensional

4-dimensional

The K-map method reduces a Boolean function from its canonical form to its_____form

subcubes

Trackball

cube

standard

The BCD Up-down Counter counts from_____

0 to 2

0 to 7

0 to 9

0 to 3

The exclusive-OR gate is another logic gate which can be constructed using_____

AND

OR

NOT

all of the above

The BCD does not use the numbers 1010, 1011, 1100, 1101, 1110 and 1111

True

False

not sure

none of the options

Covert 101 111 010 100 base 2 to base 8

5724

5725

5624

5734

Complex Boolean equations can be simplified by a new kind of algebra, which is popularly called_____

linear algebra

complex algeba

switching algebra

none above

Which of these electronic components are connected together to form logic gates.

Capacitors

Transistors

Resistors

Thyristor

if x=0, y=1, z=0. the Logic gate 3-OR (X+Y+Z) in the truth table will be ?

10

not sure

0

1

Transistors, acting as tiny electronic binary switches are connected together to form logic gates

True

False

not sure

all of the above

The decimal value for the binary number 1011011 is

91

191

82

67

In Logic, the circuit that operates such that its output is high only when all its inputs are high is called?

the OR gate

the NAND gate

the NOR gate

the AND gate

What will be the output of a 2-input (x & y) NAND gate, if x = 0, y = 1

High

Toggle

Low

Forbidden

what will be the output of a 3-input AND gate(X,Y,Z), if X = 0, Y= 1, Z = 1?

10

0

1

101

The decimal value for the binary number 1011011 is

91

97

192

45

Which of these theorem is useful in converting maxterm-to-miniterm and miniterm-to-maxterm Boolean expression

Karnaugh Map Theorem

De Morgan's Theorem

Boolean Theorem

None of the option

Covert 101 111 010 100 base 2 to base 8

5723

5744

524

5724

Which of these is a circuit simulator used to accurately convert Boolean expression to Truth table or otherwise

Digital Converter

Electronic Workbench

Mathlab

Logical Converter

Covert the octal number 5724 to base 2

101 111 010 101

101 111 010 100

101 101 010 100

101 111 010 110

Which logic gate complements the input?

AND

OR

NAND

NOT

Whenever the J-K flip-flop is wired for use only in the toggle mode, then the flip-flop is commonly called

Clocked JK flip-flop

T flip-flop

Toggled JK flip-flop

D flip-flop

Which logic gate might be called the " any but not all gate?

NAND

XOR

OR

XNOR

Which logic gate might be called the " any or all gate"?

NAND

XOR

OR

XNOR

Which logic gate might be called the " all or nothing gate"?

NAND

XOR

OR

XNOR

Switches arranged in series will act like what type of logic gate?

OR

AND

NOT

NAND

Switches arranged in parallel will act like what type of logic gate?

OR

AND

NOT

NAND

Tiny electronic binary switches that are connected together to form logic gates are called?

Transformer

capacitors

Resistors

Transistors

A minterm is a product term that contains all the variables used in a function

False

not sure

True

none above

The Binary Coded Decimal does not support four bit

True

False

All of the above

None of the above

Covert this octal number 5724 to binary numbering system

111 101 001 110

101 111 010 101

101 101 010 100

101 111 010 100

What range of number is the Octal numbering system?

0 to 8

1 to 8

0 to 7

0 to 10