**Boolean algebra**

Question 8: The simplification of the Boolean expression is



A+B’+C+A’+B+C’

A. 0

B. 1

C. A

D. BC

Question 9: Karnaugh map is used for the purpose of

A. Reducing the electronic circuits used.

B. To map the given Boolean logic function.

C. To minimize the terms in a Boolean expression.

D. To maximize the terms of a given a Boolean expression.

Question 10: Convert the following SOP expression to an equivalent POS expression.

http://www.indiabix.com/_files/images/digital-electronics/digital-fundamentals/mcq4_01600.gif

111 100 101 110 001

7 4 5 6 1

F = SOP(1,4,5,6,7)

F = POS(0,2,3)

000 010 011

A+B+C A+B’+C A+B’+C’

A. http://www.indiabix.com/_files/images/digital-electronics/digital-fundamentals/mca4_0160a.gif

B. http://www.indiabix.com/_files/images/digital-electronics/digital-fundamentals/mca4_0160b.gif

C. http://www.indiabix.com/_files/images/digital-electronics/digital-fundamentals/mca4_0160c.gif

D. http://www.indiabix.com/_files/images/digital-electronics/digital-fundamentals/mca4_0160d.gif

Question 11: The simplification of the Boolean expression ABCABCis

A. 0

B. 1

C. A

D. ABC

Question 12: The Boolean expression is equivalent to

A’B+A(B’+B)

A’B+A

A+A’.A+B

1.A+B

A+B

A. 

B. 

C. 

D. 

Question 13: When simplified with Boolean Algebra (x + y)(x + z) simplifies to

x.x + x.z + y.x + y.z

x + xz + xy + yz

x(1+z+y) + yz

x + yz

A. x

B. x + x(y + z)

C. x(1 + yz)

D. x + yz

Question 14: The simplest equation which implements the K-map shown below is:

C’ C

|  |  |
| --- | --- |
| 0 | 0 |
| 1 | 1 |
| 1 | 1 |
| 0 | 1 |

A’B’

A’B

AB

AB’

B + AC

A. X = AC +B

B. X = AC’

C. X = ABC + ABC’ + AB’C

D. X = AB +AB’