Assignment - Binary numbers and Binary Addition

Q1. Write the decimal equivalent of the binary number 10110.

Ans. 1 0 1 1 0

2^4*1 + 2^3*0 + 2^2*1 + 2^1*1 + 2^0*0

= 16 + 0 + 4 + 2 + 0

= 22

Q2. Write the decimal equivalent of the binary number 110101.

Ans.

= 2^5*1 + 2^4*1 +2^3*0 +2^2*1 +2^1*0 +2^0*1

= 32 + 16 + 0 + 4 + 0 + 1

= 53

Q3. Write the binary equivalent of the decimal number 45.

Ans. Dividing 45 by 2 as base is two for binary number, and storing the remainder in an array which will either be 1 or 0.

45 22 11 5 2 1

= 1 0 1 1 0 1

So, 101101 is the binary number of 45.

Q4. Write the binary equivalent of the decimal number 60.

Ans. cc

60 30 15 7 3 1

= 0 0 1 1 1 1

So, 111100 is the binary number of 60.

Q5. Write the binary equivalent of the decimal number 33.

Ans. Dividing 33 by 2 as base is two for binary number, and storing the remainder in an array which will either be 1 or 0.

	33	16	8	4	2	1
=	1	0	0	0	0	1