

# Number system – Introduction to decimal and binary and their interconversion

## MCQs



**Q1- The number of digits in binary system are :**

- a) 2
- b) 16
- c) 10
- d) None of the above

**Q2- 1 Nibble contains \_\_\_\_\_ number of bits**

- a) 2
- b) 4
- c) 8
- d) 16

**Q3- Convert the following binary numbers to decimal numbers.**

**1101102**

- a) 58
- b) 52
- c) 54
- d) 50

**Q4- Convert the binary 10101 to its decimal equivalent.**

- a) 21
- b) 12
- c) 22
- d) 31

**Q-5 Convert the Given Decimal Number to Binary Number: 26210**

- a)  $100100101_2$
- b)  $100000101_2$
- c)  $100000110_2$
- d)  $110000110_2$

**Answers:**

Ans 1 : a) 2 : Binary comes in the form of 0's and 1's.

Ans 2 : b) 4

Ans 3 : c) 54

$$\begin{array}{cccccc}
 1 & 1 & 0 & 1 & 1 & 0 \\
 \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\
 1 \times 2^5 & 1 \times 2^4 & 0 \times 2^3 & 1 \times 2^2 & 1 \times 2^1 & 0 \times 2^0
 \end{array}$$

$$\begin{aligned}
 &25 + 24 + 0 + 22 + 21 + 0 \\
 &= 32 + 16 = 0 + 4 + 2 + 0 \\
 &= 54
 \end{aligned}$$

Ans 4 : a) 21

Explanation: To convert a binary number to its decimal equivalent follow these steps :

$$24 * 1 + 23 * 0 + 22 * 1 + 21 * 0 + 20 * 1 = 21.$$

Ans 5 : c)  $100000110_2$

	262	
2	131	- 0
2	65	- 1
2	32	- 1
2	16	- 0
2	8	- 0
2	4	- 0
2	2	- 0
2	1	- 0