CLASS-7TH

CHAPTER-1 NUMBER SYSTEM
QUESTION ANSWER

Q,1- Explain number system and its types.

Ans. Number System- A number system is a set of values used to represent different quantities. A computer represents all kinds of data and information in binary number system.

Types of Number System: There are four types of number system and they are as follows:

1. Binary Number System
2. Octal Number System
3. Decimal Number System
4. Hexadecimal Number System

Q.2- Write the rules to convert a decimal number into a binary number.

Ans. The rules to convert a decimal number into binary number are as follow:

1. Divide the given decimal number with 2.

2. Write down the remainder and divide the quotient again with 2.

3. Repeat the step 2 till the quotient is 0.

4. Write the remainder obtained in each step in the reverse order to form the binary number system.

Q.3 Briefly explain octal and hexadecimal number system.

Ans. Octal Number System: The Octal number system has a base of 8. It has eight digits 0, 1, 2, 3, 4, 5, 6, 7. Each octal digit has its own positional value or weight, which is expressed as the power of 8.

Hexadecimal Number System: It consists of 16 digits, number from 0-9 and the letters from A-F that represents number from 10-15. The base of this system is 16. The value of each digit is expressed as the power of 16.

Q.4 Explain binary addition and binary subtraction.

Ans. Binary Addition: The technique used to add binary number inside the computer is called Binary addition.

For ex: 0+0=0 & 0+1=1

Binary Subtraction: The technique used to subtract binary number inside the computer is called Binary subtraction.

For ex: 0-0=0 & 0-1=1

Q.5- Perform the following:

Ans. (i) 1001101 + 1000101101

0	0	0	1	0	0	1	1	0	1
1	0	0	0	1	0	1	1	0	1
1	0	0	1	1	1	1	0	1	0

(ii) 10011 – 01010

1	0	0	1	1
0	1	0	1	0
0	1	0	0	1

HOME WORK

Q. Convert the following:

1- $(68)_{10} = (---)_2$

2- $(657)_{10} = (---)_8$

3- $(10101)_2 = (---)_{10}$

4- $(4d2)_{16} = (---)_{10}$