



Number System

A. Tick (✓) the correct answer.

1. (c) ON and OFF 2. (b) OFF 3. (c) 0 to 7
4. (a) hexadecimal 5. (b) bit

B. Write 'T' for True and 'F' for False statements.

1. False 2. True 3. True
4. False 5. True

C. Fill in the blanks.

1. Digits 2. Binary 3. 10
4. 8 5. 0 to 9 and A to F

D. Define the following.

1. **LSD:** LSD stands for Least Significant Digit is the rightmost digit of the binary number, which is 0 in this case.
2. **MSD:** MSD stands for Most Significant Digit is the leftmost digit, which is 1 in this case.
3. **Byte:** A group of 8 bits is called a byte.

E. Differentiate between the following.

1. Binary Number system	Decimal Number system
The binary number system is a base 2 number system and the symbols it uses are 0 and 1.	The decimal number system is a base 10 number system. It indicates how many symbols it uses.

2.

Octal Number System

The octal number system is a base 8 number system and the symbols it uses 0,1,2,3,4,5,6,7.

Hexadecimal Number System

The hexadecimal number system is a base 16 number system and the symbols it uses are 0 to 9 and A to F.

F. Answer briefly.

1. Number system is a way to represent numbers in a computer system. Every value that we are giving to/getting from computer memory has a defined number system. There are two types of number systems. They are the Positional number system and the Non-positional number system.
2. The steps to convert from binary to decimal equivalent are-
 - Step 1:** Note down the place value of each digit.
 - Step 2:** Multiply each digit with its place value.
 - Step 3:** Add the product to get back the number.

G. Application-based Question

For counting beyond ten, they used non-positional number system method.