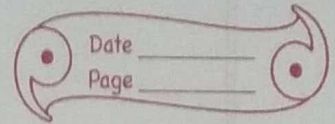


Ciw
30/4/22

SECTION-A



A- Fill in the blanks.

- 1- The base of Binary number system is 2.
- 2- The base of decimal number system is 10.
- 3- Octal number system consists of 8 digits.
- 4- In Binary addition, $1+1$ equals to 10.
- 5- Binary number system is understood by the computer system.
- 6- Hexadecimal uses 16 symbols to represent numbers.
- 7- In Binary subtraction, $1-1$ equals to 0.

0, Binary, Decimal Number, Hexadecimal, 2, 8, 10

B- State True or false :-

- ① You cannot perform arithmetical operations on binary numbers. **F**
- ② The decimal number system consists of 10 digits i.e., 0 to 9. **T**
- ③ The method to perform division of two binary numbers is not the same as that of decimal numbers. **F**
- ④ 1 multiplied by 0 equals to 0. **T**
- ⑤ Charles Babbage introduced the concept of 0 (zero). **F**
- ⑥ The numbers used in Octal Number System are 1 to 7. **F**

SECTION-B

A - Multiple-choice questions

1- Aryabhat introduced the concept of 0 (zero).

- (a) Ada Lovelace
- (b) Aryabhat
- (c) Bill Gates

2- A Digital Computer converts the decimal format into its binary equivalent.

- (a) Digital Computer
- (b) Cell Phone
- (c) Abacus

3- A computer understands only Binary Code.

- (a) English
- (b) French
- (c) Binary

4- In Binary multiplication, 1×1 equals to 1.

- (a) 0
- (b) 1
- (c) 2

5- To convert Decimal number into Binary number, divide the number by 2.

- (a) 2
- (b) 8
- (c) 10

B- Answer The Following Questions.

1- What is a number system? Name the different types of number system used.

Ans- The earlier methods used for counting numbers were not adequate and had many limitations. To overcome these limitations, number system was introduced. The number system is a set of values used to represent different quantities.

Types of number system are-

- Decimal Number System
- Binary Number System
- Octal Number System
- Hexadecimal Number System.

2- What are the rules to convert a Decimal number into a Binary Number?

Ans- Rules to convert decimal number into binary number are:

- Step 1: Divide the given decimal number with base 2.
- Step 2: Write down the remainder and divide the quotient again by 2.
- Step 3: Repeat the step 2 till the quotient is zero.

3. Write the rules to multiply two Binary numbers.

Ans - The rules for performing multiplication using Binary numbers is same as that of the decimal numbers.

a	b	$a * b = c$
0	0	$0 * 0 = 0$
0	1	$0 * 1 = 0$
1	0	$1 * 0 = 0$
1	1	$1 * 1 = 1$

4. Briefly explain the Octal Number system.

Ans - The concept of Octal number system came from the Native American. The Octal number system consists of 8 digits: 0 to 7 with base 8.

5. What do you understand by Hexadecimal Number System?

Ans - The Hexadecimal number system is also known as hex, consists of 16 digits: 0-9 and the letters A-F represents digits 10 to 15 with the base 16.