SECTION - A

A. Fill in the blanks.

1. The base of Binary number system is _____2_____.

2. The base of _____Decimal_____ 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 ____ O

B. State True or False.

1. You cannot perform arithmetical operations on binary numbers.

2. The decimal number system consists of 10 digits i.e., 0 to 9.

3. The method to perform division of two binary numbers is not the same as that of decimal numbers.

4. 1 multiplied by 0 equals to 0.

5. Charles Babbage introduced the concept of 0 (Zero).

6. The numbers used in Octal number system are 1 to 7.

SECTION - B

A. Multiple-choice questions.

1. _____ introduced the concept of o (Zero).

   a. Ada Lovelace   b. Aryabhat   c. Bill Gates

2. A _____ converts the decimal format into its binary equivalent.

   a. Digital Computer   b. Cell Phone   c. Abacus

3. A computer understands only _____ code.

   a. English   b. French   c. Binary

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

   a. 0   b. 1   c. 2

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

   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.

   The number system is a set of values to represent
   different quantities:- ① Decimal, ② Binary, ③ Octal,
   ④ Hexadecimal

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

Step I - Devide the given decimal number with base 2.
Step II - Write down the remainder, devide the quotient again by 2
Step III - Repeat step II till the quotient is zero.

3. Write the rules to multiply two Binary numbers.

$0 \times 0 = 0$
$0 \times 1 = 0$
$1 \times 1 = 1$

4. Briefly explain the Octal number system.

The Octal number system consists of 0 to 7. C8 digits with base 8. The concept of Octal number system came from the Native Americans.

5. What do you understand by Hexadecimal Number System?

It's a number system consisting of 16 digits - 0 to 9 and letters A-F, which represent 10 to 15, with base 16.

ACTIVITY SECTION

LAB SESSION   Perfection Through Practice

A. Convert the following Decimal numbers into Binary numbers.

a. 68	b. 987	c. 657