DECIMAL TO HEXADECIMAL CONVERSION

EXP NO: 28

AIM: To write a C program to implement decimal to hexadecimal conversion.

ALGORITHM:

1) Start from the right-most digit. Its weight (or coefficient) is 1.
2) Multiply the weight of the position by its digit. Add the product to the result.

(0=0, 1=1, 2=2, … 9=9, A=10, B=11, C=12, D=13, E=14,F=15)

3) Move one digit to the left. Its weight is 16 times the previous weight.
4) Repeat 2 and 3 until you go through all digits.

PROGRAM/OUTPUT SS:

[*] decimal to Hexadecimal.cpp

```
1  #include<stdio.h>
2  int main() {
3  long int decimalNumber,remainder,quotient;
4  int i=1,j,temp;
5  char hexadecimalNumber[100];
6  printf("Enter any decimal number: ");
7  scanf("%ld",&decimalNumber);
8  quotient= decimalNumber;
9  while(quotient!=0){
10 temp= quotient % 16;
11 if(temp < 10){
12 temp =temp + 48;
13 }else{
14 temp = temp + 55;
15 hexadecimalNumber[i++]=temp;
16 quotient= quotient / 16;
17 }
18 printf("Equivalent hexadecimal value of decimal number %d: ",decimalNumber);
19 for(j = i -1 ;j> 0;j--){
20 printf("%c",hexadecimalNumber[j]);
21 return 0;
22 }
23 }}
```

```
C:\Users\praba\OneDrive\Des
Equivalent hexadecimal value of decimal number 15: F
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Process exited after 4.438 seconds with return value 0
Press any key to continue . . .
```

RESULT: Thus the program was executed successfully using DevC++.