Assignment - 4 C Language LIVE Community Classes MySirG

1. Write a C program to print Hello Students on the screen.

2. Write a C Program to print Hello on the first line and Students in the second line.

3. Write a C program to print “MySirG” on the screen

4. Write a C program to print “Teacher’s Day” on the screen

5. Write a C program to print \n on the screen

6. Write a C program to print %d on the screen

7. Write a C program containing declaration of three variables (of type int, char and

float), also assign some values to them and print values of all three variables using

single printf().

8. Explore following format specifiers on internet - %i, %g, %lf

9. Write a C program to print character stored in a char variable, also print its ASCII

code.

1. How to convert a Decimal number into a Binary number and vice versa.

**Solutions:-**

Ans=1) //print Hello Students on the screen

#include<stdio.h>

int main()

{

    printf("Hello Students");

    return 0;

}

Output:-

[Running] cd "c:\Users\HP\.vscode\" && gcc test.c -o test && "c:\Users\HP\.vscode\"test

Hello Students

[Done] exited with code=0 in 0.529 seconds

Ans=2) Code:-

#include<stdio.h>

int main()

{

    printf("Hello\nStudents");

    return 0;

}

Output:-

[Running] cd "c:\Users\HP\.vscode\" && gcc test.c -o test && "c:\Users\HP\.vscode\"test

Hello

Students

[Done] exited with code=0 in 0.428 seconds

Ans=3)Code:-

#include<stdio.h>

int main()

{

    printf("MySirG");

    return 0;

}

Output:-

[Running] cd "c:\Users\HP\.vscode\" && gcc test.c -o test && "c:\Users\HP\.vscode\"test

MySirG

[Done] exited with code=0 in 0.439 seconds

Ans=4)Code:-

#include<stdio.h>

int main()

{

    printf("Teacher's Day");

    return 0;

}

Output:-

[Running] cd "c:\Users\HP\.vscode\" && gcc test.c -o test && "c:\Users\HP\.vscode\"test

Teacher's Day

[Done] exited with code=0 in 0.445 seconds

Ans=5) Code:-

#include<stdio.h>

int main()

{

    printf("\n");

    return 0;

}

Output:-

[Running] cd "c:\Users\HP\.vscode\" && gcc test.c -o test && "c:\Users\HP\.vscode\"test

[Done] exited with code=0 in 0.44 seconds

Ans=6)Code:-

#include<stdio.h>

int main()

{

    printf("%d");

    return 0;

}

Output:-

[Running] cd "c:\Users\HP\.vscode\" && gcc test.c -o test && "c:\Users\HP\.vscode\"test

0

[Done] exited with code=0 in 0.451 seconds

Ans=7) Code:-

#include<stdio.h>

int main()

{

    int a=5;

    char m='A';

    float b=9.6543;

    printf("The three integers are a=%d , m=%c , b=%f, ", a,m,b);

    return 0;

}

Output:-

[Running] cd "c:\Users\HP\.vscode\" && gcc test.c -o test && "c:\Users\HP\.vscode\"test

The three integers are a=5 , m=A , b=9.654300,

[Done] exited with code=0 in 0.443 seconds

Ans=8) %i - a decimal integer (detects the base automatically).

%g - It is **used to print the decimal floating-point values**, and it uses the fixed precision.

%lf -**print the double value.**

Ans=9) Code:-

#include<stdio.h>

int main()

{

    char m='C';

    printf("The Character stored in m variable is %c and its ASCII code is %d", m,m);

    return 0;

}

Output:-

[Running] cd "c:\Users\HP\.vscode\" && gcc test.c -o test && "c:\Users\HP\.vscode\"test

The Character stored in m variable is C and its ASCII code is 67

[Done] exited with code=0 in 0.609 seconds

Ans=10) **Conversion of decimal number to binary number:-**

To convert numbers from decimal to binary, the given decimal number is divided repeatedly by 2 and the remainders are noted down till we get 0 as the final [quotient](https://www.cuemath.com/numbers/quotient/). The following steps is considered as the decimal to binary formula that shows the procedure of conversion.

* **Step 1:** Divide the given decimal number by 2 and note down the [remainder](https://www.cuemath.com/numbers/remainder/).
* **Step 2**: Now, divide the obtained quotient by 2, and note the remainder again.
* **Step 3:** Repeat the above steps until you get 0 as the quotient.
* **Step 4:** Now, write the remainders in such a way that the last remainder is written first, followed by the rest in the reverse order.
* **Step 5:** This can also be understood in another way which states that the Least Significant Bit (LSB) of the binary number is at the top and the Most Significant Bit (MSB) is at the bottom. This number is the binary value of the given decimal number.

**Conversion of binary number to decimal number:-**

There are two methods to convert a number from binary to decimal number system.

* Positional Notation Method
* Doubling Method

(Decimal Number)10 = (d0 × 20)+ (d1 × 21)+ (d2 × 22)+ ..... + dn-1 × 2n-1)

where, d0, d1, d2 are the individual digits of the binary number starting from the right-most position.