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**C Language Assignment 4**

1).

#include<stdio.h>

#include<conio.h>

int main()

{

printf("Hello Students");

getch();

}

2).

#include<stdio.h>

#include<conio.h>

int main()

{

printf("Hello\nStudents");

getch();

}

3).

#include<stdio.h>

#include<conio.h>

int main()

{

printf("\"MySirG\"");

getch();

}

4).

#include<stdio.h>

#include<conio.h>

int main()

{

printf("\"Teacher's Day\"");

getch();

}

5).

#include<stdio.h>

#include<conio.h>

int main()

{

printf("\\n");

getch();

}

6).

#include<stdio.h>

#include<conio.h>

int main()

{

printf("%%d");

getch();

}

7).

#include<stdio.h>

#include<conio.h>

int main()

{

int a=5;

char b='A';

float c=5.23;

printf("a=%d b=%c c=%f",a,b,c);

getch();

}

8).

|  |  |
| --- | --- |
| Format specifier | Use to print value of data type |
| %i | unsigned integer |
| %g | Similar as %e or %E (scientific notation of floats) |
| %lf | double |

9).

#include<stdio.h>

#include<conio.h>

int main()

{

char a='A';

printf("ASCII code of a =%d",a);

getch();

}

10).

Conversion of decimal number to binary number

Conversion Steps:

1. Divide the number by 2.
2. Get the integer quotient for the next iteration.
3. Get the remainder for the binary digit.
4. Repeat the steps until the quotient is equal to 0.

Example:

Convert 1310 to binary:

|  |  |  |  |
| --- | --- | --- | --- |
| Division by 2 | Quotient | Remainder | Bit # |
| 13/2 | 6 | 1 | 0 |
| 6/2 | 3 | 0 | 1 |
| 3/2 | 1 | 1 | 2 |
| 1/2 | 0 | 1 | 3 |

So 1310 = 11012

Conversion of binary number to decimal number

Conversion Steps:

**1**: Write down the binary number.

**2**: Starting with the least significant digit (LSB - the rightmost one), multiply the digit by the value of the position. Continue doing this until you reach the most significant digit (MSB - the leftmost one).

**3**: Add the results and you will get the decimal equivalent of the given binary number.

Example:

Convert (1010)2 into decimal:

Step 1: Write down (1010)2 and determine the positions, namely the powers of 2 that the digit belongs to.

Step 2: Represent the number in terms of its positions. (1 \* 23) + (0 \* 22) + (1 \* 21) + (0 \* 20)

Step 3: (1 \* 8) + (0 \* 4) + (1 \* 2) + (0 \* 1) = 8 + 0 + 2 + 0 = 10

Therefore, (1010)2 = (10)10