CSA5734-FUNDAMENTALS OF COMPUTING WITH OPERATING SYSTEMS

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1.C program to convert decimal to hexadecimal .

C PROGRAM:

```c
#include<stdio.h>

int main()

{

    int dec,rem,quo;

    int i=1,j,temp;

    char hexadecnum[100];

    printf("Enter any decimal number: ");

    scanf("%ld",&dec);

    quo=dec;

    while(quo!=0)

    {

        temp=quo%16;

        if( temp<10)

            temp=temp+48;

        else

            temp=temp+55;

        hexadecnum[i++]=temp;

        quo=quo/16;

    }
```

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```c
        printf("hexadecimal value of decimal number %d=",dec);

        for (j=i-1;j>0;j--)

            printf("%c",hexadecnum[j]);

        return 0;

}
```

2.C program to convert hexadecimal to decimal.

C PROGRAM:

```c
#include <stdio.h>

int main()

{

    int n;

    printf("enter hexadecimal number: ");

    scanf("%x",&n);

    printf("decimal number is: %d",n);

    return 0;

}
```

3.C program to convert decimal to octal.

C PROGRAM:

```c
#include <stdio.h>

int main()

{
```

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```c
int num;

printf("Enter the decimal number:  ");

scanf("%d", &num);

printf("Octal Number: %o", num);

return 0;

}
```

4.C program to convert octal to decimal.

C PROGRAM:

```c
#include <stdio.h>

#include <math.h>

int main()

{

   int octal,decimal=0;

   int i=0;

   printf("Enter an octal number: ");

   scanf("%ld",&octal);

   while(octal!=0)

   {

      decimal=decimal+(octal%10)*pow(8,i++);

      octal=octal/10;
```

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```
    }

    printf("Decimal value: %ld",decimal);

    return 0;

}
```

5.C Program to read a number and find its square.

C PROGRAM:

```
#include<stdio.h>

int main()

{

        int sq,n;

        printf("enter a number ");

        scanf("%d",&n);

        printf("The given number is %d",n);

        sq=n*n;

        printf("\nsquare of given number=%d",sq);

}
```

6.C Program to find the biggest of three numbers.

C PROGRAM:

```
#include<stdio.h>

int main()

{
```

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```c
float a,b,c;

printf("enter a,b and c values ");

scanf("%f%f%f",&a,&b,&c);

if(a>b && a>c)

{

        printf("a is greatest");

}

else if(b>c && b>a)

{

printf("b is greatest");

}

else if(c>a && c>b)

{

printf("c is greatest");

}

else

{

printf("same value");

}

}
```

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7.C Program to find leap year.

C PROGRAM:

```c
#include<stdio.h>

main()

{

    int n;

    printf("enter a year ");

    scanf("%d",&n);

    if(n>0)

    {

        if(n%4==0)

        {

            printf("leap year");

        }

        else

        {

            printf("not a leap year");

        }

    }

    else

    {
```

```c
        printf("enter valid year");

    }

}
```

8.C Program to prepare mark list using elif statement.

C PROGRAM:

```c
#include<stdio.h>

int main()

{

    int m1,m2,m3,tot;

    float avg;

    printf("enter the three subject marks: ");

    scanf("%d%d%d",&m1,&m2,&m3);

    tot=m1+m2+m3;

    printf("total marks:%d\n",tot);

    avg=tot/3;

    printf("average:%f",avg);

    if (m1>=0 && m1<=100 && m2>=0 && m2<=100 && m3>=0 && m3<=100)

    {

        if (avg>=90)

        {
```

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```c
        printf("\ngrade A");

}

else if(avg<90 && avg>=80)

{

        printf("\nGrade B");

}

else if(avg<80 && avg>=70)

{

        printf("\nGrade C");

}

else if(avg<70 && avg>=60)

{

        printf("\nGrade D");

}

else if(avg<60 && avg>=50)

{

        printf("\nGrade E");

}

else

{

        printf("\nFail");
```

```
        }

    }

    else

    {

        printf("\nenter the correct marks");

    }

}
```

9.C Program to perform arithmetic operation on two numbers.

C PROGRAM:

```c
#include<stdio.h>

int main()

{

    float a,b;

    printf("enter a and b values");

    scanf("%f%f",&a,&b);

    printf("addition=%.2f",a+b);

    printf("\nsubbtraction=%.2f",a-b);

    printf("\nmultilpication=%.2f",a*b);

    printf("\ndivision=%.2f",a/b);

}
```

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10.C Program to print n natural number.

C PROGRAM:

```c
#include<stdio.h>

int main()

{

	int n,i;

	printf("enter number");

	scanf("%d",&n);

	for(i=1;i<=n;i++)

	{

		printf("%d\n",i);

	}

	return 0;

}
```

11.C Program to find area of different shapes.

C PROGRAM:

```c
#include<stdio.h>

#include<math.h>

int main()

{

	int l,b,h,r,s;
```

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```
printf("enter the length: ");

scanf("%d",&l);

printf("enter the breadth: ");

scanf("%d",&b);

printf("enter the height: ");

scanf("%d",&h);

printf("enter the side: ");

scanf("%d",&s);

printf("enter the radius: ");

scanf("%d",&r);

printf("\narea of the circle:%.2f",3.14*r*r);

printf("\narea of the square:%d",s*s);

printf("\narea of the rectangle:%d",l*b);

printf("\narea of the triangle:%.2f",0.5*b*h);
}
```

12.C Program to check number is palindrome.

C PROGRAM:

```
#include<stdio.h>

int main()

{

    int n,r,sum=0,temp;
```

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```c
printf("Enter the Number=");

scanf("%d",&n);

temp=n;

while(n>0)

{

    r=n%10;

    sum=(sum*10)+r;

    n=n/10;

}

if(temp==sum)

printf("Number is Palindrome");

else

printf("Number is not Palindrome");

}
```