THE NEOTIA UNIVERSITY

WORK INSTRUCTION

1.0 ASSIGNMENT NO.: 01

2.0 ASSIGNMENT NAME: Introduction to DOS.

3.0 OBJECTIVE: Practice various DOS commands.

4.0 COMMANDS : Internal Commands: MD,CD,EDIT,COPY CON, COPY, TYPE,CLS, DIR, DEL, RD, VER, DATE, TIME etc.
External Commands: FORMAT, TREE, DELTREE, DISKCOPY, DISKCOMP, FIND etc.

5.0 FACILITIES REQUIRED:

5.1 Computer-Hardware
5.2 MS – DOS Operating System.

6.0 PROCEDURE:

6.1 Switch on the **UPS** and **monitor**.
6.2 Then switch on the **CPU**.
6.3 After **OS** is loaded, go to **start** menu and click.
6.4 Go to **MS-DOS** prompt and click. You will see : **C:\WINDOWS>**
6.5 Type **cd** and then press Enter key. You will see: **C :**type your command and see \the result

7.1 Properly shutdown the machine follows by those steps.
7.1.1 Go to **start** menu and click.
7.1.2 Click **shut down** option.
7.1.3 Show a **shut down** window.
7.1.4 Click the **radio** button corresponding to **shut down** option.
7.1.5 Click **OK** button.

7.2 Floppy/CD is not to be used.

7.0 DISPOSAL:

Not applicable.

8.0 REPORT WRITING:

8.1 The 1st Page of the report shall be as per the format shown in Annexure – 1.
8.2 Write your program with output.

ANNEXURE-1

THE NEOTIA UNIVERSITY

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ROLL NO.:_____ DEPARTMENT: _____

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OBJECTIVE:_____

Marks Obtained

Signature of the Sessional in - Charge

THE NEOTIA UNIVERSITY

WORK INSTRUCTION

1.0 ASSIGNMENT NO.: 02

2.0 ASSIGNMENT NAME: Write a 'C' program to convert a temperature given in Degree Centigrade to Degree Fahrenheit & vice versa.

3.0 OBJECTIVE: 'C' program to convert a temperature from Degree Centigrade to Degree Fahrenheit & vice versa.

4.0 ALGORITHM :

```
main()
{  float c1, c2, f1, f2;
   printf ("\nEnter temperature in Degree Centigrade :");
   scanf ("%f", &c1);
   f1= (9*c1+160)/5;
   printf("\nResult in Fahrenheit is = %f",f1);
   printf ("\nEnter temperature in Fahrenheit :");
   scanf ("%f", &f2);
   c2= 5*(f2-32)/9;
   printf ("\nResult in Centigrade is = %f",c2);
}
```

5.0 FACILITIES REQUIRED:

5.1 Computer-Hardware
5.2 Turbo C-Software

6.0 PROCEDURE:

6.1 Switch on the **UPS** and **monitor**.
6.2 Then switch on the **CPU**.
6.3 After **OS** is loaded, go to **start** menu and click.
6.4 Go to **MS-DOS** prompt and click. You will see : **C:\WINDOWS>**
6.5 Type **cd** and then press Enter key. You will see: **C :\>**
6.6 Type **cd\tc\bin** and then press Enter key. You will see : **C:\TC\BIN>**
6.7 Type **tc** and then press Enter key. Open **tc** editor window.
6.8 Type your programs and after typing, go to **file** menu and click. Then go to **save as** menu and click. After clicking, you will enter your programs name and click **Ok** button.
6.9 Go to **compile** menu and click **compile option**. After successfully compilation, you will go to **run** menu and click **run** option.
6.10 Your output result will display.

7.0 SAFETY:

7.1 Properly shutdown the machine follows by those steps.
- **7.1.1** Go to **start** menu and click.
- **7.1.2** Click **shut down** option.
- **7.1.3** Show a **shut down** window.
- **7.1.4** Click the **radio** button corresponding to **shut down** option.
- **7.1.5** Click **OK** button.

7.2 Floppy/CD is not to be used.

8.0 DISPOSAL:

Not applicable.

9.0 REPORT WRITING:

9.1 The 1st Page of the report shall be as per the format shown in Annexure – 1.
9.2 Write your program with output.

THE NEOTIA UNIVERSITY

ANNEXURE-1

NAME: _____

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TITLE: _____

OBJECTIVE:_____

Marks Obtained

Signature of the Sessional in - Charge

THE NEOTIA UNIVERSITY

WORK INSTRUCTION

1.0 ASSIGNMENT NO.: 03

2.0 ASSIGNMENT NAME: Write a 'C' program to calculate simple & compound interest.

3.0 OBJECTIVE: 'C' program to convert simple & compound interest.

4.0 ALGORITHM :

```
main()
{ float si, ci,p,n,r,a;
 printf("\nEnter principle amount,no. of years & rate of interest:");
 scanf("%f %f %f",&p,&n,&r);
si=p*n*r/100;
a=p*pow((1+r/100),n);
ci=a-p;
printf("\nSimple Interest is = %f",si);
printf("\nCompound Interest is =%f",ci);
}
```

5.0 FACILITIES REQUIRED:

- **5.1** Computer-Hardware
- **5.2** Turbo C-Software

6.0 PROCEDURE:

- **6.1** Switch on the **UPS** and **monitor**.
- **6.2** Then switch on the **CPU**.
- **6.3** After **OS** is loaded, go to **start** menu and click.
- **6.4** Go to **MS-DOS** prompt and click. You will see : **C:\WINDOWS>**
- **6.5** Type **cd** and then press Enter key. You will see: **C :\>**
- **6.6** Type **cd\tc\bin** and then press Enter key. You will see : **C:\TC\BIN>**
- **6.7** Type **tc** and then press Enter key. Open **tc** editor window.
- **6.8** Type your programs and after typing, go to **file** menu and click. Then go to **save as** menu and click. After clicking, you will enter your programs name and click **Ok** button.
- **6.9** Go to **compile** menu and click **compile option**. After successfully compilation, you will go to **run** menu and click **run** option.
- **6.10** Your output result will display.

7.0 SAFETY:

- **7.1** Properly shutdown the machine follows by those steps.
  - **7.1.1** Go to **start** menu and click.
  - **7.1.2** Click **shut down** option.
  - **7.1.3** Show a **shut down** window.
  - **7.1.4** Click the **radio** button corresponding to **shut down** option.
  - **7.1.5** Click **OK** button.
- **7.2** Floppy/CD is not to be used.

8.0 DISPOSAL:

Not applicable.

9.0 REPORT WRITING:

9.1 The 1st Page of the report shall be as per the format shown in Annexure – 1.
9.2 Write your program with output.

THE NEOTIA UNIVERSITY

ANNEXURE-1

NAME: _____

ROLL NO.:_____ DEPARTMENT: _____

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OBJECTIVE:_____

Marks Obtained

Signature of the Sessional in - Charge

THE NEOTIA UNIVERSITY

WORK INSTRUCTION

1.0 ASSIGNMENT NO.: 04

2.0 ASSIGNMENT NAME: Write a 'C' program to find the roots of a quadratic equation.

3.0 OBJECTIVE: 'C' program to find the roots of a quadratic equation.

4.0 ALGORITHM :

```
main()
{ float a,b,c,d,r1,r2;
  printf("\nEnter co-efficients:");
  scanf("%f %f %f",&a,&b,&c);
  d=b*b-4*a*c;
  if(d>=0)
  {
     r1=(-b+sqrt(d))/2*a;
     r2=(-b-sqrt(d))/2*a;
     printf("\nThe real roots are %f and %f",r1,r2);
  }
  else
     printf("\nThe roots are imaginary");
}
```

5.0 FACILITIES REQUIRED:

5.1 Computer-Hardware
5.2 Turbo C-Software

6.0 PROCEDURE:

6.1 Switch on the **UPS** and **monitor**.
6.2 Then switch on the **CPU**.
6.3 After **OS** is loaded, go to **start** menu and click.
6.4 Go to **MS-DOS** prompt and click. You will see : **C:\WINDOWS>**
6.5 Type **cd** and then press Enter key. You will see: **C :\>**
6.6 Type **cd\tc\bin** and then press Enter key. You will see : **C:\TC\BIN>**
6.7 Type **tc** and then press Enter key. Open **tc** editor window.
6.8 Type your programs and after typing, go to **file** menu and click. Then go to **save as** menu and click. After clicking, you will enter your programs name and click **Ok** button.
6.9 Go to **compile** menu and click **compile option**. After successfully compilation, you will go to **run** menu and click **run** option.
6.10 Your output result will display.

7.0 SAFETY:

7.1 Properly shutdown the machine follows by those steps.
- **7.1.1** Go to **start** menu and click.
- **7.1.2** Click **shut down** option.
- **7.1.3** Show a **shut down** window.
- **7.1.4** Click the **radio** button corresponding to **shut down** option.
- **7.1.5** Click **OK** button.

7.2 Floppy/CD is not to be used.

8.0 DISPOSAL:

Not applicable.

9.0 REPORT WRITING:

9.1 The 1st Page of the report shall be as per the format shown in Annexure – 1.
9.2 Write your program with output.

THE NEOTIA UNIVERSITY

ANNEXURE-1

NAME: _____

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TITLE: _____

OBJECTIVE:_____

Marks Obtained

Signature of the Sessional in - Charge

THE NEOTIA UNIVERSITY

WORK INSTRUCTION

1.0 ASSIGNMENT NO.: 05

2.0 ASSIGNMENT NAME: Write a 'C' program to determine largest among 3 numbers.

3.0 OBJECTIVE: 'C' program to determine largest among 3 numbers.

4.0 ALGORITHM :

```
main()
{  int a,b,c;
   printf("\nEnter three nos.:");
   scanf("%d %d %d",&a,&b,&c);
   if(a>b)
   {   if(a>c)
           printf("\n%d is largest", a);
       else
           printf ("\n%d is largest",c);
   }
   else
   {  if(b>c)
           printf("\n%d is largest",c);
       else
           printf("\n%d is largest",c);
    }
   }
```

5.0 FACILITIES REQUIRED:

5.1 Computer-Hardware
5.2 Turbo C-Software

6.0 PROCEDURE:

6.1 Switch on the **UPS** and **monitor**.
6.2 Then switch on the **CPU**.
6.3 After **OS** is loaded, go to **start** menu and click.
6.4 Go to **MS-DOS** prompt and click. You will see : **C:\WINDOWS>**
6.5 Type **cd** and then press Enter key. You will see: **C :\>**
6.6 Type **cd\tc\bin** and then press Enter key. You will see : **C:\TC\BIN>**
6.7 Type **tc** and then press Enter key. Open **tc** editor window.
6.8 Type your programs and after typing, go to **file** menu and click. Then go to **save as** menu and click. After clicking, you will enter your programs name and click **Ok** button.
6.9 Go to **compile** menu and click **compile option**. After successfully compilation, you will go to **run** menu and click **run** option.
6.10 Your output result will display.

7.0 SAFETY:

7.1 Properly shutdown the machine follows by those steps.
- **7.1.1** Go to **start** menu and click.
- **7.1.2** Click **shut down** option.
- **7.1.3** Show a **shut down** window.
- **7.1.4** Click the **radio** button corresponding to **shut down** option.
- **7.1.5** Click **OK** button.

7.2 Floppy/CD is not to be used.

8.0 DISPOSAL:

Not applicable.

9.0 REPORT WRITING:

9.1 The 1st Page of the report shall be as per the format shown in Annexure – 1.
9.2 Write your program with output.

THE NEOTIA UNIVERSITY

ANNEXURE-1

NAME: _____

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OBJECTIVE:_____

Marks Obtained

Signature of the Sessional in - Charge

THE NEOTIA UNIVERSITY

WORK INSTRUCTION

1.0 ASSIGNMENT NO.: 06

2.0 ASSIGNMENT NAME: Write a 'C' program to determine whether an year is Leap Year or not.

3.0 OBJECTIVE: 'C' program to determine whether an year is Leap Year or not.

4.0 ALGORITHM :

```
main()
{  int  year;
   printf("\nEnter any year:");
   scanf("%d",&year);
   if(year%4==0 && year%100!=0 ||  year%400==0)
      printf("\n%d is Leap Year");
   else
      printf("\n%d is not Leap Year");
}
```

5.0 FACILITIES REQUIRED:

5.1 Computer-Hardware
5.2 Turbo C-Software

6.0 PROCEDURE:

6.1 Switch on the **UPS** and **monitor**.
6.2 Then switch on the **CPU**.
6.3 After **OS** is loaded, go to **start** menu and click.
6.4 Go to **MS-DOS** prompt and click. You will see : **C:\WINDOWS>**
6.5 Type **cd** and then press Enter key. You will see: **C :\>**
6.6 Type **cd\tc\bin** and then press Enter key. You will see : **C:\TC\BIN>**
6.7 Type **tc** and then press Enter key. Open **tc** editor window.
6.8 Type your programs and after typing, go to **file** menu and click. Then go to **save as** menu and click. After clicking, you will enter your programs name and click **Ok** button.
6.9 Go to **compile** menu and click **compile option**. After successfully compilation, you will go to **run** menu and click **run** option.
6.10 Your output result will display.

7.0 SAFETY:

7.1 Properly shutdown the machine follows by those steps.
  7.1.1 Go to **start** menu and click.
  7.1.2 Click **shut down** option.
  7.1.3 Show a **shut down** window.
  7.1.4 Click the **radio** button corresponding to **shut down** option.
  7.1.5 Click **OK** button.
7.2 Floppy/CD is not to be used.

8.0 DISPOSAL:

Not applicable.

9.0 REPORT WRITING:

9.1 The 1st Page of the report shall be as per the format shown in Annexure – 1.

9.2 Write your program with output.

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OBJECTIVE:_____

Marks Obtained

Signature of the Sessional in - Charge

THE NEOTIA UNIVERSITY

WORK INSTRUCTION

1.0 ASSIGNMENT NO.: 07

2.0 ASSIGNMENT NAME: Write a 'C' program to determine whether a number is prime or not.

3.0 OBJECTIVE: 'C' program to determine whether a number is prime or not.

4.0 ALGORITHM :

```
main()
{ int num,i;
  printf("\nEnter any number:");
  scanf("%d",&num);
  i=2;
  while(i<=num-1)
  { if(num%i==0)
    {  printf("%d is not prime no.",num); break;
    }
    i++;
  }
  if(i==num)
       printf("\n%d is prime no.",num);
}
```

5.0 FACILITIES REQUIRED:

5.1 Computer-Hardware
5.2 Turbo C-Software

6.0 PROCEDURE:

6.1 Switch on the **UPS** and **monitor**.
6.2 Then switch on the **CPU**.
6.3 After **OS** is loaded, go to **start** menu and click.
6.4 Go to **MS-DOS** prompt and click. You will see : **C:\WINDOWS>**
6.5 Type **cd** and then press Enter key. You will see: **C :\>**
6.6 Type **cd\tc\bin** and then press Enter key. You will see : **C:\TC\BIN>**
6.7 Type **tc** and then press Enter key. Open **tc** editor window.
6.8 Type your programs and after typing, go to **file** menu and click. Then go to **save as** menu and click. After clicking, you will enter your programs name and click **Ok** button.
6.9 Go to **compile** menu and click **compile option**. After successfully compilation, you will go to **run** menu and click **run** option.
6.10 Your output result will display.

7.0 SAFETY:

7.1 Properly shutdown the machine follows by those steps.
- **7.1.1** Go to **start** menu and click.
- **7.1.2** Click **shut down** option.
- **7.1.3** Show a **shut down** window.
- **7.1.4** Click the **radio** button corresponding to **shut down** option.
- **7.1.5** Click **OK** button.

7.2 Floppy/CD is not to be used.

8.0 DISPOSAL:

Not applicable.

9.0 REPORT WRITING:

9.1 The 1st Page of the report shall be as per the format shown in Annexure – 1.
9.2 Write your program with output.

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THE NEOTIA UNIVERSITY

WORK INSTRUCTION

1.0 ASSIGNMENT NO.: 08

2.0 ASSIGNMENT NAME: Write a 'C' program to determine factorial of a given number.

3.0 OBJECTIVE: 'C' program to determine factorial of a given number.

4.0 ALGORITHM :main()

```
{ int i, fact=1,n;
  printf("\nEnter any no.:");
  scanf("%d",&n);
  for(i=1;i<=n;i++)
      fact=fact*i;
  printf("\nFactorial of given no. %d is: %d",n,fact);
}
```

5.0 FACILITIES REQUIRED:

5.1 Computer-Hardware
5.2 Turbo C-Software

6.0 PROCEDURE:

6.1 Switch on the **UPS** and **monitor**.
6.2 Then switch on the **CPU**.
6.3 After **OS** is loaded, go to **start** menu and click.
6.4 Go to **MS-DOS** prompt and click. You will see : **C:\WINDOWS>**
6.5 Type **cd** and then press Enter key. You will see: **C :\>**
6.6 Type **cd\tc\bin** and then press Enter key. You will see : **C:\TC\BIN>**
6.7 Type **tc** and then press Enter key. Open **tc** editor window.
6.8 Type your programs and after typing, go to **file** menu and click. Then go to **save as** menu and click. After clicking, you will enter your programs name and click **Ok** button.
6.9 Go to **compile** menu and click **compile option**. After successfully compilation, you will go to **run** menu and click **run** option.
6.10 Your output result will display.

7.0 SAFETY:

7.1 Properly shutdown the machine follows by those steps.
- **7.1.1** Go to **start** menu and click.
- **7.1.2** Click **shut down** option.
- **7.1.3** Show a **shut down** window.
- **7.1.4** Click the **radio** button corresponding to **shut down** option.
- **7.1.5** Click **OK** button.

7.2 Floppy/CD is not to be used.

8.0 DISPOSAL:

Not applicable.

9.0 REPORT WRITING:

9.1 The 1st Page of the report shall be as per the format shown in Annexure – 1.

9.2 Write your program with output.

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ANNEXURE-1

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OBJECTIVE:_____

Marks Obtained

Signature of the Sessional in - Charge

THE NEOTIA UNIVERSITY

WORK INSTRUCTION

1.0 ASSIGNMENT NO.: 09

2.0 ASSIGNMENT NAME: Write a 'C' program to determine Fibonacci series of n numbers

3.0 OBJECTIVE: 'C' program to determine Fibonacci series of n numbers.

4.0 ALGORITHM :

```
main()
{
  int f0=0,f1=1,f2,num,count=0;
  printf("\nEnter the limit:");
  scanf("%d",&num);
  printf("\nThe Fibbonacci Series is : \n");
  if(num<=0)
     printf("\nWrong Input....!!!");
   else  if(num==1)
           printf(" %d",f0);
         else if(num==2)
                 printf(" %d %d",f0,f1);
              else
               {  count=3;
                  f2=f0+f1;
                  printf(" %d %d %d",f0,f1,f2);
                  while(count<num)
                  {  f0=f1;
                     f1=f2;
                     f2=f0+f1;
                     printf(" %d",f2);
                  }
               }
}
```

5.0 FACILITIES REQUIRED:

- **5.1** Computer-Hardware
- **5.2** Turbo C-Software

6.0 PROCEDURE:

- **6.1** Switch on the **UPS** and **monitor**.
- **6.2** Then switch on the **CPU**.
- **6.3** After **OS** is loaded, go to **start** menu and click.
- **6.4** Go to **MS-DOS** prompt and click. You will see : **C:\WINDOWS>**
- **6.5** Type **cd** and then press Enter key. You will see: **C :\>**.
- **6.6** Type **cd\tc\bin** and then press Enter key. You will see : **C:\TC\BIN>**
- **6.7** Type **tc** and then press Enter key. Open **tc** editor window.
- **6.8** Type your programs and after typing, go to **file** menu and click. Then go to **save as** menu and click. After clicking, you will enter your programs name and click **Ok** button.
- **6.9** Go to **compile** menu and click **compile option**. After successfully compilation, you will go to **run** menu and click **run** option.

6.10 Your output result will display.

7.0 SAFETY:

7.1 Properly shutdown the machine follows by those steps.

- **7.1.1** Go to **start** menu and click.
- **7.1.2** Click **shut down** option.
- **7.1.3** Show a **shut down** window.
- **7.1.4** Click the **radio** button corresponding to **shut down** option.
- **7.1.5** Click **OK** button.

7.2 Floppy/CD is not to be used.

8.0 DISPOSAL:

Not applicable.

9.0 REPORT WRITING:

9.1 The 1st Page of the report shall be as per the format shown in Annexure – 1.

9.2 Write your program with output.

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ANNEXURE-1

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Marks Obtained

Signature of the Sessional in - Charge

THE NEOTIA UNIVERSITY

WORK INSTRUCTION

1.0 ASSIGNMENT NO.: 10

2.0 ASSIGNMENT NAME: Write a 'C' program to convert Decimal number to Binary and vice-versa.

3.0 OBJECTIVE: 'C' program to convert Decimal number to Binary/ Octal/Hexadecimal numbers

4.0 ALGORITHM :

```
main()
{
  int i,dnum,bnum,rem;
  printf("\nEnter any decimal number:");
  scanf("%d",&dnum);
  i=0;
  bnum=0;
  while(dnum>0)
  {
    rem=dnum%2;
    bnum=bnum+pow(10,i)*rem;
    num/=2;
    i++;
  }
  printf("\nThe equivalent binary number is = %d",bnum);
  printf("\nEnter any binary number:");
  scanf("%d",&bnum);
  i=0;
  dnum=0;
  while(bnum>0)
  {
    rem=bnum%10;
    dnum=dnum+pow(2,i)*rem;
    num/=10;
    i++;
  }
  printf("\nThe equivalent binary number is = %d",dnum);
}
```

5.0 FACILITIES REQUIRED:

5.1 Computer-Hardware
5.2 Turbo C-Software

6.0 PROCEDURE:

6.1 Switch on the **UPS** and **monitor**.
6.2 Then switch on the **CPU**.
6.3 After **OS** is loaded, go to **start** menu and click.
6.4 Go to **MS-DOS** prompt and click. You will see : **C:\WINDOWS>**
6.5 Type **cd** and then press Enter key. You will see: **C :\>**
6.6 Type **cd\tc\bin** and then press Enter key. You will see : **C:\TC\BIN>**
6.7 Type **tc** and then press Enter key. Open **tc** editor window.

6.8 Type your programs and after typing, go to **file** menu and click. Then go to **save as** menu and click. After clicking, you will enter your programs name and click **Ok** button.

6.9 Go to **compile** menu and click **compile option**. After successfully compilation, you will go to **run** menu and click **run** option.

6.10 Your output result will display.

7.0 SAFETY:

7.1 Properly shutdown the machine follows by those steps.

7.1.1 Go to **start** menu and click.

7.1.2 Click **shut down** option.

7.1.3 Show a **shut down** window.

7.1.4 Click the **radio** button corresponding to **shut down** option.

7.1.5 Click **OK** button.

7.2 Floppy/CD is not to be used.

8.0 DISPOSAL:

Not applicable.

9.0 REPORT WRITING:

9.1 The 1st Page of the report shall be as per the format shown in Annexure – 1.

9.2 Write your program with output.

THE NEOTIA UNIVERSITY

ANNEXURE-1

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Marks Obtained

Signature of the Sessional in - Charge

THE NEOTIA UNIVERSITY

WORK INSTRUCTION

1.0 ASSIGNMENT NO.: 11

2.0 ASSIGNMENT NAME: Write a 'C' compute following series:

$$s = 1+x/1! + x^2/2! + x^3/3! + \ldots\ldots..$$

3.0 OBJECTIVE: 'C' program to compute the series upto 'n' numbers.

4.0 ALGORITHM :

```
main()
{ int i,n,f=1;
  float x,sum=1;
  printf("\nEnter how many:");
  scanf("%d",&n);
  printf("\nEnter value of x:");
  scanf("%f",&x);
  for(i=1;i<=n;i++)
  {     f=f*i;
        sum+= pow(x,i)/f;
   }
  printf("\nThe summation of the series is : %f",sum);
}
```

5.0 FACILITIES REQUIRED:

- **5.1** Computer-Hardware.
- **5.2** Turbo C-Software.

6.0 PROCEDURE:

- **6.1** Switch on the **UPS** and **monitor**.
- **6.2** Then switch on the **CPU**.
- **6.3** After **OS** is loaded, go to **start** menu and click.
- **6.4** Go to **MS-DOS** prompt and click. You will see : **C:\WINDOWS>**
- **6.5** Type **cd** and then press Enter key. You will see: **C :\>**
- **6.6** Type **cd\tc\bin** and then press Enter key. You will see : **C:\TC\BIN>**
- **6.7** Type **tc** and then press Enter key. Open **tc** editor window.
- **6.8** Type your programs and after typing, go to **file** menu and click. Then go to **save as** menu and click. After clicking, you will enter your programs name and click **Ok** button.
- **6.9** Go to **compile** menu and click **compile option**. After successfully compilation, you will go to **run** menu and click **run** option.
- **6.10** Your output result will display.

7.0 SAFETY:

- **7.1** Properly shutdown the machine follows by those steps.
  - **7.1.1** Go to **start** menu and click.
  - **7.1.2** Click **shut down** option.
  - **7.1.3** Show a **shut down** window.
  - **7.1.4** Click the **radio** button corresponding to **shut down** option.
  - **7.1.5** Click **OK** button.
- **7.2** Floppy/CD is not to be used.

8.0 DISPOSAL:

Not applicable.

9.0 REPORT WRITING:

9.1 The 1st Page of the report shall be as per the format shown in Annexure – 1.
9.2 Write your program with output.

THE NEOTIA UNIVERSITY

ANNEXURE-1

NAME: _____

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OBJECTIVE:_____

Marks Obtained

Signature of the Sessional in - Charge

THE NEOTIA UNIVERSITY

WORK INSTRUCTION

1.0 ASSIGNMENT NO.: 12

2.0 ASSIGNMENT NAME: Write a 'C' program to generate the following triangle:

```
1
0 1
1 0 1
0 1 0 1
```

3.0 OBJECTIVE: 'C' program to generate the triangles upto 'h' heights.

4.0 ALGORITHM :

```
main()
{  int i, j, h,c;
   printf("\nEnter height:");
   scanf("%d",&h);
   for(i=1;i<=h;i++)
   { for(j=1;j<=i;j++)
     {  c=(i+j-1)%2;  printf(" %d",c);
     }
     printf("\n");
   }
}
```

5.0 FACILITIES REQUIRED:

5.1 Computer-Hardware.
5.2 Turbo C-Software.

6.0 PROCEDURE:

6.1 Switch on the **UPS** and **monitor**.
6.2 Then switch on the **CPU**.
6.3 After **OS** is loaded, go to **start** menu and click.
6.4 Go to **MS-DOS** prompt and click. You will see : **C:\WINDOWS>**
6.5 Type **cd** and then press Enter key. You will see: **C :\>**
6.6 Type **cd\tc\bin** and then press Enter key. You will see : **C:\TC\BIN>**
6.7 Type **tc** and then press Enter key. Open **tc** editor window.
6.8 Type your programs and after typing, go to **file** menu and click. Then go to **save as** menu and click. After clicking, you will enter your programs name and click **Ok** button.
6.9 Go to **compile** menu and click **compile option**. After successfully compilation, you will go to **run** menu and click **run** option.
6.10 Your output result will display.

7.0 SAFETY:

7.1 Properly shutdown the machine follows by those steps.
- **7.1.1** Go to **start** menu and click.
- **7.1.2** Click **shut down** option.
- **7.1.3** Show a **shut down** window.
- **7.1.4** Click the **radio** button corresponding to **shut down** option.
- **7.1.5** Click **OK** button.

7.2 Floppy/CD is not to be used.

8.0 DISPOSAL:

Not applicable.

9.0 REPORT WRITING:

9.1 The 1st Page of the report shall be as per the format shown in Annexure – 1.
9.2 Write your program with output.

THE NEOTIA UNIVERSITY

ANNEXURE-1

NAME: _____

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TITLE: _____

OBJECTIVE:_____

Marks Obtained

Signature of the Sessional in - Charge

THE NEOTIA UNIVERSITY

WORK INSTRUCTION

1.0 ASSIGNMENT NO.: 13

2.0 ASSIGNMENT NAME: Write a 'C' program to compute GCD & LCM of given two numbers.

3.0 OBJECTIVE: 'C' program to compute GCD & LCM of given two numbers.

4.0 ALGORITHM :

```
main()
{  int a,b,x,rem,l;
   printf("\nEnter two positive integers :");
   scanf("%d%d",&a,&b);
   x=a*b;
   if(a>b)
   {  rem=a%b;
      while(rem!=0)
      {  a=b;
         b=rem;
         rem=a%b;
      }
      printf("\nGCD=%d",b);
      l=x/b;
      printf("\nLCM=%d",l);
   }
   else
   {  rem=b%a;
      while(rem!=0)
      {  b=a;
         a=rem;
         rem=b%a;
      }
      printf("\nGCD=%d",a);
      l=x/a;
      printf("\nLCM=%d",l);
   }
}
```

5.0 FACILITIES REQUIRED:

- **5.1** Computer-Hardware
- **5.2** Turbo C-Software

6.0 PROCEDURE:

- **6.1** Switch on the **UPS** and **monitor**.
- **6.2** Then switch on the **CPU**.
- **6.3** After **OS** is loaded, go to **start** menu and click.
- **6.4** Go to **MS-DOS** prompt and click. You will see : **C:\WINDOWS>**
- **6.5** Type **cd** and then press Enter key. You will see: **C :\>**
- **6.6** Type **cd\tc\bin** and then press Enter key. You will see : **C:\TC\BIN>**
- **6.7** Type **tc** and then press Enter key. Open **tc** editor window.

6.8 Type your programs and after typing, go to **file** menu and click. Then go to **save as** menu and click. After clicking, you will enter your programs name and click **Ok** button.

6.9 Go to **compile** menu and click **compile option**. After successfully compilation, you will go to **run** menu and click **run** option.

6.10 Your output result will display.

7.0 SAFETY:

7.1 Properly shutdown the machine follows by those steps.

7.1.1 Go to **start** menu and click.

7.1.2 Click **shut down** option.

7.1.3 Show a **shut down** window.

7.1.4 Click the **radio** button corresponding to **shut down** option.

7.1.5 Click **OK** button.

7.2 Floppy/CD is not to be used.

8.0 DISPOSAL:

Not applicable.

9.0 REPORT WRITING:

9.1 The 1st Page of the report shall be as per the format shown in Annexure – 1.

9.2 Write your program with output.

THE NEOTIA UNIVERSITY

ANNEXURE-1

NAME: _____

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TITLE: _____

OBJECTIVE:_____

Marks Obtained

Signature of the Sessional in - Charge

THE NEOTIA UNIVERSITY

WORK INSTRUCTION

1.0 ASSIGNMENT NO.: 14

2.0 ASSIGNMENT NAME: Write a 'C' program to compute Bubble sort.

3.0 OBJECTIVE: 'C' program to compute Bubble sort.

4.0 ALGORITHM :

```
main()
{  int arr[max],n,i,j,temp;
   printf("\n\t\t\tBUBBLE SORT");
   printf("\n\t\t\t----------");
   printf("\nEnter no. of elements to sort:");
    scanf("%d",&n);
  for(i=0;i<n;i++)
  {
     printf("\nEnter value in arr[%d]:",i+1);
     scanf("%d",&arr[i]);
  }
 for(i=0;i<n-1;i++)
       for(j=0;j<n-1-i;j++)
            if(arr[j]>arr[j+1])
            {
              temp=arr[j+1];
              arr[j+1]=arr[j];
              arr[j]=temp;
            }
  printf("\nThe sorted list is:\n");
 for(i=0;i<n;i++)
              printf("%d\t",arr[i]);
 getch();
}
```

5.0 FACILITIES REQUIRED:

5.1 Computer-Hardware
5.2 Turbo C-Software

6.0 PROCEDURE:

6.1 Switch on the **UPS** and **monitor**.
6.2 Then switch on the **CPU**.
6.3 After **OS** is loaded, go to **start** menu and click.
6.4 Go to **MS-DOS** prompt and click. You will see : **C:\WINDOWS>**
6.5 Type **cd** and then press Enter key. You will see: **C :\>**
6.6 Type **cd\tc\bin** and then press Enter key. You will see : **C:\TC\BIN>**
6.7 Type **tc** and then press Enter key. Open **tc** editor window.
6.8 Type your programs and after typing, go to **file** menu and click. Then go to **save as** menu and click. After clicking, you will enter your programs name and click **Ok** button.
6.9 Go to **compile** menu and click **compile option**. After successfully compilation, you will go to **run** menu and click **run** option.
6.10 Your output result will display.

7.0 SAFETY:

7.1 Properly shutdown the machine follows by those steps.

7.1.1 Go to **start** menu and click.

7.1.2 Click **shut down** option.

7.1.3 Show a **shut down** window.

7.1.4 Click the **radio** button corresponding to **shut down** option.

7.1.5 Click **OK** button.

7.2 Floppy/CD is not to be used.

8.0 DISPOSAL:

Not applicable.

9.0 REPORT WRITING:

9.1 The 1st Page of the report shall be as per the format shown in Annexure – 1.

9.2 Write your program with output.

THE NEOTIA UNIVERSITY

ANNEXURE-1

NAME: _____

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OBJECTIVE:_____

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THE NEOTIA UNIVERSITY

WORK INSTRUCTION

1.0 ASSIGNMENT NO.: 15

2.0 ASSIGNMENT NAME: Write a 'C' program to compute Linear & Binary search.

3.0 OBJECTIVE: 'C' program to compute Linear & Binary search.

4.0 ALGORITHM : Linear Search:

```
main()
{ int arr[max],num,i;
  printf("\n\tInput values in the array.");
  for(i=0;i<max;i++)
  { printf("\n\tEnter element in arr[%d]:",i);
    scanf("%d",&arr[i]);
  }
  printf("\n\tThe elements are:\n");
  for(i=0;i<max;i++)
     printf("\t%d",arr[i]);
  printf("\n\tEnter element to search:");
  scanf("%d",&num);
  for(i=0;i<max;i++)
  { if(arr[i]==num)
    { printf("\n\t%d found in %dth position.",num,i);
      getch();
      exit(0);
    }
  }
  printf("\n\t%d not found.",num);
}
```

Binary Search:

```
main()
{ int arr[max],num,i,j,ch,lb,ub,mid,f,temp;
  printf("\n\tInput values in the array.");
  for(i=0;i<max;i++)
  {printf("\n\tEnter element in arr[%d]:",i);
   scanf("%d",&arr[i]);
  }
  for(i=0;i<max;i++)
  { for(j=0;j<max-i-1;j++)
    {

   { if(arr[j]>arr[j+1])
     { temp=arr[j];
       arr[j]=arr[j+1];
       arr[j+1]=temp;
     }
   }
  }
  printf("\n\tThe elements are:\n");
  for(i=0;i<max;i++)
    printf("\t%d",arr[i]);
```

```
        printf("\n\tEnter element to search:");
        scanf("%d",&num);
        lb=0;ub=max-1;mid=0,f=-1;
        while(lb<=ub)
        { mid=(lb+ub)/2;
          if(arr[mid]<num)
             lb=mid+1;
          else
             if(arr[mid]>num)
                ub=mid-1;
             else
             {printf("\n\t%d is found in %dth position.",
                        num,mid);
              getch();
              exit(0);
             }
         }
         printf("\n\t%d is not found.",num);
      }
```

5.0 FACILITIES REQUIRED:

5.1 Computer-Hardware
5.2 Turbo C-Software

6.0 PROCEDURE:

6.1 Switch on the **UPS** and **monitor**.
6.2 Then switch on the **CPU**.
6.3 After **OS** is loaded, go to **start** menu and click.
6.4 Go to **MS-DOS** prompt and click. You will see : **C:\WINDOWS>**
6.5 Type **cd** and then press Enter key. You will see: **C :\>**
6.6 Type **cd\tc\bin** and then press Enter key. You will see : **C:\TC\BIN>**
6.7 Type **tc** and then press Enter key. Open **tc** editor window.
6.8 Type your programs and after typing, go to **file** menu and click. Then go to **save as** menu and click. After clicking, you will enter your programs name and click **Ok** button.
6.9 Go to **compile** menu and click **compile option**. After successfully compilation, you will go to **run** menu and click **run** option.
6.10 Your output result will display.

7.0 SAFETY:

7.1 Properly shutdown the machine follows by those steps.
- **7.1.1** Go to **start** menu and click.
- **7.1.2** Click **shut down** option.
- **7.1.3** Show a **shut down** window.
- **7.1.4** Click the **radio** button corresponding to **shut down** option.
- **7.1.5** Click **OK** button.

7.2 Floppy/CD is not to be used.

8.0 DISPOSAL:

Not applicable.

9.0 REPORT WRITING:

9.1 The 1st Page of the report shall be as per the format shown in Annexure – 1.

9.2 Write your program with output.

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ANNEXURE-1

NAME: _____

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Marks Obtained

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THE NEOTIA UNIVERSITY

WORK INSTRUCTION

1.0 ASSIGNMENT NO.: 16

2.0 ASSIGNMENT NAME: Write a 'C' program to compute Matrix addition & multiplication.

3.0 OBJECTIVE: 'C' program to compute Matrix addition & multiplication.

4.0 ALGORITHM : Matrix Addition:

```
main()
 { int a[3][3],b[3][3],c[3][3], i, j;
 printf ("\nEnter elements in first matrix:\n");
 for(i=0;i<3;i++)
   for(j=0;j<3;j++)
    { printf("\nEnter element in a[%d][%d]:",i,j);
      scanf("%d",&a[i][j]);
     }
  printf ("\nEnter elements in second matrix:\n");
 for(i=0;i<3;i++)
   for(j=0;j<3;j++)
    { printf("\nEnter element in b[%d][%d]:",i,j);
      scanf("%d",&a[i][j]);
     }
 for(i=0;i<3;i++)
   for(j=0;j<3;j++)
       c[i][j]=a[i][j]+b[i][j[];
 printf ("\nMatrix after addition :\n");
 for(i=0;i<3;i++)
 { for(j=0;j<3;j++)
      printf("\t%d", c[i][j]);
   printf("\n");
 }
```

Matrix Multiplication:

```
main()
{int a[3][3],b[3][3],c[3][3], i, j,k;
printf ("\nEnter elements in first matrix:\n");
for(i=0;i<3;i++)
  for(j=0;j<3;j++)
   { printf("\nEnter element in a[%d][%d]:",i,j);
     scanf("%d",&a[i][j]);
    }
printf ("\nEnter elements in second matrix:\n");
for(i=0;i<3;i++)
  for(j=0;j<3;j++)
   { printf("\nEnter element in b[%d][%d]:",i,j);
     scanf("%d",&a[i][j]);
    }
for(i=1;i<=n;i++)
{  for(j=1;j<=n;j++)
   {c[i][j]=0;
```

```
        for(k=1;k<=n;k++)
                c[i][j]+=a[i][k]+b[k][j];
      }
    }
   for(i=1;i<=n;i++)
   {for(j=1;j<=n;j++)
         printf("%d\t",c[i][j]);
    printf("\n");
    }
```

5.0 FACILITIES REQUIRED:

5.1 Computer-Hardware
5.2 Turbo C-Software

6.0 PROCEDURE:

6.1 Switch on the **UPS** and **monitor**.
6.2 Then switch on the **CPU**.
6.3 After **OS** is loaded, go to **start** menu and click.
6.4 Go to **MS-DOS** prompt and click. You will see : **C:\WINDOWS>**
6.5 Type **cd** and then press Enter key. You will see: **C :\>**
6.6 Type **cd\tc\bin** and then press Enter key. You will see : **C:\TC\BIN>**
6.7 Type **tc** and then press Enter key. Open **tc** editor window.

6.8 Type your programs and after typing, go to **file** menu and click. Then go to **save as** menu and click. After clicking, you will enter your programs name and click **Ok** button.
6.9 Go to **compile** menu and click **compile option**. After successfully compilation, you will go to **run** menu and click **run** option.
6.10 Your output result will display.

7.0 SAFETY:

7.1 Properly shutdown the machine follows by those steps.
- **7.1.1** Go to **start** menu and click.
- **7.1.2** Click **shut down** option.
- **7.1.3** Show a **shut down** window.
- **7.1.4** Click the **radio** button corresponding to **shut down** option.
- **7.1.5** Click **OK** button.

7.2 Floppy/CD is not to be used.

8.0 DISPOSAL:

Not applicable.

9.0 REPORT WRITING:

9.1 The 1st Page of the report shall be as per the format shown in Annexure – 1.
9.2 Write your program with output.

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ANNEXURE-1

NAME: _____

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Marks Obtained

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WORK INSTRUCTION

1.0. ASSIGNMENT NO.: 17

2.0. ASSIGNMENT NAME: Write a C program to compute Fibonacci series using user defined function.

3.0. OBJECTIVE: 'C' program to compute Fibonacci series using user defined function.

4.0. ALGORITHM:

```
int fibo(int n)
{
  if(n==0 || n==1)
      return n;
  else
      return(fibo(n-1)+fibo(n-2));
}
```

5.0. FACILITIES REQUIRED:

5.1. Computer-Hardware

5.2. Turbo C-Software

6.0. PROCEDURE:

6.1 Switch on the UPS and **monitor**.

6.2 Then switch on the CPU.

6.3 After **OS** is loaded, go to **start** menu and click.

6.4 Go to **MS-DOS** prompt and click. You will see : **C:\WINDOWS>**

6.5 Type **cd** and then press Enter key. You will see: **C :\>**

6.6 Type **cd\tc\bin** and then press Enter key. You will see : **C:\TC\BIN>**

6.7 Type **tc** and then press Enter key. Open **tc** editor window.

6.8 Type your programs and after typing, go to **file** menu and click. Then go to **save as** menu and click. After clicking, you will enter your programs name and click **Ok** button.

6.9 Go to **compile** menu and click **compile option**. After successfully compilation, you will go to **run** menu and click **run** option.

6.10 Your output result will display.

7.0. SAFETY:

7.1 Properly shutdown the machine follows by those steps.

7.1.1 Go to **start** menu and click.

7.1.2 Click **shut down** option.

7.1.3 Show a **shut down** window.

7.1.4 Click the **radio** button corresponding to **shut down** option.

7.1.5 Click **OK** button.

7.2 Floppy/CD is not to be used.

8.0 DISPOSAL:

Not applicable.

9.0 REPORT WRITING:

9.1 The 1st Page of the report shall be as per the format shown in Annexure – 1.

9.2 Write your program with output.

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ANNEXURE-1

NAME: _____

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WORK INSTRUCTION

1.0 ASSIGNMENT NO.: 18

2.0 ASSIGNMENT NAME: Write a 'C' program to compute Factorial of a given no. using recursion.

3.0 OBJECTIVE: 'C' program to compute Factorial of a given no. & Fibonacci series of a given no.

4.0 ALGORITHM :

```
int fact(int n)
{
 if(n==0)
   return 1;
 else
   return(n*fact(n-1));
}
```

5.0 FACILITIES REQUIRED:

5.1 Computer-Hardware
5.2 Turbo C-Software

6.0 PROCEDURE:

6.1 Switch on the **UPS** and **monitor**.
6.2 Then switch on the **CPU**.
6.3 After **OS** is loaded, go to **start** menu and click.
6.4 Go to **MS-DOS** prompt and click. You will see : **C:\WINDOWS>**
6.5 Type **cd** and then press Enter key. You will see: **C :\>**
6.6 Type **cd\tc\bin** and then press Enter key. You will see : **C:\TC\BIN>**
6.7 Type **tc** and then press Enter key. Open **tc** editor window.
6.8 Type your programs and after typing, go to **file** menu and click. Then go to **save as** menu and click. After clicking, you will enter your programs name and click **Ok** button.
6.9 Go to **compile** menu and click **compile option**. After successfully compilation, you will go to **run** menu and click **run** option.
6.10 Your output result will display.

7.0 SAFETY:

7.1 Properly shutdown the machine follows by those steps.
- **7.1.1** Go to **start** menu and click.
- **7.1.2** Click **shut down** option.
- **7.1.3** Show a **shut down** window.
- **7.1.4** Click the **radio** button corresponding to **shut down** option.
- **7.1.5** Click **OK** button.

7.2 Floppy/CD is not to be used.

8.0 DISPOSAL:

Not applicable.

9.0 REPORT WRITING:

9.1 The 1st Page of the report shall be as per the format shown in Annexure – 1.
9.2 Write your program with output.

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ANNEXURE-1

NAME: _____

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Marks Obtained

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WORK INSTRUCTION

1.0 ASSIGNMENT NO.: 19

2.0 ASSIGNMENT NAME: Write a 'C' program to count no. of vowels, digits, consonants, spaces, words of a given string.

3.0 OBJECTIVE: 'C' program to count no. of vowels, digits, consonants, spaces, words of a given string.

4.0 ALGORITHM :

```
main()
{char str[100];
 int i,v=0,d=0,c=0,s=0,w=1;
 printf("\nEnter any string:");
 fflush(stdin); gets(str);
 for(i=0;str[i]!='\0';i++)
 {if(isalpha(str[i]))
  {switch(tolower(str[i]))
   { case 'a':
     case 'e':
     case 'i':
     case 'o':
     case 'u': v++;break;
     default : c++;
   }
  }
  if(str[i]==' ' || str[i]!='\0')
  { s++;w++; }
  if(isdigit(str[i]))
      d++;
 }
 printf("\nThe no. of vowels is = %d",v);
 printf("\nThe no. of consonents is = %d",c);
 printf("\nThe no. of digits is = %d",d);
 printf("\nThe no. of spaces is = %d",s);
 printf("\nThe no. of words is = %d",w);
}
```

5.0 FACILITIES REQUIRED:

5.1 Computer-Hardware
5.2 Turbo C-Software

6.0 PROCEDURE:

6.1 Switch on the **UPS** and **monitor**.
6.2 Then switch on the **CPU**.
6.3 After **OS** is loaded, go to **start** menu and click.
6.4 Go to **MS-DOS** prompt and click. You will see : **C:\WINDOWS>**
6.5 Type **cd** and then press Enter key. You will see: **C :\>**
6.6 Type **cd\tc\bin** and then press Enter key. You will see : **C:\TC\BIN>**
6.7 Type **tc** and then press Enter key. Open **tc** editor window.

6.8 Type your programs and after typing, go to **file** menu and click. Then go to **save as** menu and click. After clicking, you will enter your programs name and click **Ok** button.

6.9 Go to **compile** menu and click **compile option**. After successfully compilation, you will go to **run** menu and click **run** option.

6.10 Your output result will display.

4.0 SAFETY:

7.1 Properly shutdown the machine follows by those steps.

- **7.1.1** Go to **start** menu and click.
- **7.1.2** Click **shut down** option.
- **7.1.3** Show a **shut down** window.
- **7.1.4** Click the **radio** button corresponding to **shut down** option.
- **7.1.5** Click **OK** button.

7.2 Floppy/CD is not to be used.

5.0 DISPOSAL:

Not applicable.

6.0 REPORT WRITING:

6.1 The 1st Page of the report shall be as per the format shown in Annexure – 1.

6.2 Write your program with output.

THE NEOTIA UNIVERSITY

ANNEXURE-1

NAME: _____

ROLL NO.:_____ DEPARTMENT: _____

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TITLE: _____

OBJECTIVE:_____

Marks Obtained

Signature of the Sessional in - Charge

THE NEOTIA UNIVERSITY

WORK INSTRUCTION

1.0 ASSIGNMENT NO.: 20

2.0 ASSIGNMENT NAME: Write a 'C' program using the functions: strlen, strcpy, strcat & strcmp.

3.0 OBJECTIVE: 'C' program using the functions : strlen, strcpy, strcat & strcmp.

4.0 ALGORITHM :

```
main()
{char *s1,*s2,*s3,*s4,*s5;
 int l1,l2;
 printf("\nEnter 1st string::");gets(s1);
 printf("\nEnter 2nd string::");gets(s2);
 printf("\nEnter 3rd string::");gets(s3);
 l1=xtrlen(s1);l2=xtrlen(s2);
 printf("\nLength of 1st string is = %d",l1);
 printf("\nLength of 1st string is = %d",l2);
 xtrcpy(s4,s1);
 printf("\nCopy of 1st string is = ");puts(s4);
 xtrcpy(s5,s2);
 printf("\nCopy of 2nd string is = ");puts(s5);
 xtrcat(s1,s2);
 printf("\nConcatenated 1st & 2nd string is = ");puts(s1);
 if(xtrcmp(s1,s3)==0)
      printf("\nConcatenated(1st & 2nd) & 3rd Strings are
                equal.");
 else
      printf("\nConcatenated(1st & 2nd) & 3rd Strings are
                equal.");
}
int xtrlen(char *s)
{int i;
 for(i=0;s[i]!='\0';i++);return i;
}
void xtrcpy(char *s2,char *s1)
{int i,j,l;
 l=xtrlen(s1);
 for(i=0,j=0;i<l;i++)
  s2[j++]=s1[i];
 s2[j]='\0';
}
void xtrcat(char *s1,char *s2)
{int i,j,l;
 l=xtrlen(s1);
 for(i=0;s2[i]!='\0';i++)
  s1[l++]=s2[i];
 s1[l]='\0';
}
int xtrcmp(char *s1,char *s2)
{int i,j,f=0;
```

```
for(i=0;s1[i]!='\0';i++)
{for(j=0;s2[j]!='\0';j++)
 {if(s1[i]!=s2[j])
  {f=-1;return f;}
 }
}
return f;
}
```

5.0 FACILITIES REQUIRED:

5.1 Computer-Hardware
5.2 Turbo C-Software

6.0 PROCEDURE:

6.1 Switch on the **UPS** and **monitor**.
6.2 Then switch on the **CPU**.
6.3 After **OS** is loaded, go to **start** menu and click.
6.4 Go to **MS-DOS** prompt and click. You will see : **C:\WINDOWS>**
6.5 Type **cd** and then press Enter key. You will see: **C :\>**
6.6 Type **cd\tc\bin** and then press Enter key. You will see : **C:\TC\BIN>**
6.7 Type **tc** and then press Enter key. Open **tc** editor window.
6.8 Type your programs and after typing, go to **file** menu and click. Then go to **save as** menu and click. After clicking, you will enter your programs name and click **Ok** button.
6.9 Go to **compile** menu and click **compile option**. After successfully compilation,
6.10 you will go to **run** menu and click **run** option.
6.11 Your output result will display.

7.0 SAFETY:

7.1 Properly shutdown the machine follows by those steps.
- **7.1.1** Go to **start** menu and click.
- **7.1.2** Click **shut down** option.
- **7.1.3** Show a **shut down** window.
- **7.1.4** Click the **radio** button corresponding to **shut down** option.
- **7.1.5** Click **OK** button.

7.2 Floppy/CD is not to be used.

8.0 DISPOSAL:

Not applicable.

9.0 REPORT WRITING:

9.1 The 1st Page of the report shall be as per the format shown in Annexure – 1.
9.2 Write your program with output.

THE NEOTIA UNIVERSITY

ANNEXURE-1

NAME: _____

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TITLE: _____

OBJECTIVE:_____

Marks Obtained

Signature of the Sessional in - Charge

THE NEOTIA UNIVERSITY

WORK INSTRUCTION

1.0 ASSIGNMENT NO.: 21

2.0 ASSIGNMENT NAME: Write a 'C' program to determine whether a given string is palindrome or not.

3.0 OBJECTIVE: 'C' program to determine whether a given string is Palindrome or not.

4.0 ALGORITHM :

```
main()
{ char str[30];
  int l,i,j,f=1;
  printf("\nEnter any string:");
  gets(str);
  l=strlen(str);
  for(i=l-1,j=0;i>=0;i--,j++)
  {  if(str[i]!=str[j])
     { f=0; break;
     }
     else
     { f=1;
       continue;
     }
   }
   if(f==0)
     printf("\nString is not palindrome.");
   else
     printf("\nString is palindrome.");
}
```

5.0 FACILITIES REQUIRED:

5.1 Computer-Hardware
5.2 Turbo C-Software

6.0 PROCEDURE:

6.1 Switch on the **UPS** and **monitor**.
6.2 Then switch on the **CPU**.
6.3 After **OS** is loaded, go to **start** menu and click.
6.4 Go to **MS-DOS** prompt and click. You will see : **C:\WINDOWS>**
6.5 Type **cd** and then press Enter key. You will see: **C :\>**
6.6 Type **cd\tc\bin** and then press Enter key. You will see : **C:\TC\BIN>**
6.7 Type **tc** and then press Enter key. Open **tc** editor window.
6.8 Type your programs and after typing, go to **file** menu and click. Then go to **save as** menu and click. After clicking, you will enter your programs name and click **Ok** button.
6.9 Go to **compile** menu and click **compile option**. After successfully compilation, you will go to **run** menu and click **run** option.
6.10 Your output result will display.

7.0 SAFETY:

7.1 Properly shutdown the machine follows by those steps.

7.1.1 Go to **start** menu and click.
7.1.2 Click **shut down** option.
7.1.3 Show a **shut down** window.
7.1.4 Click the **radio** button corresponding to **shut down** option.
7.1.5 Click **OK** button.

7.2 Floppy/CD is not to be used.

8.0 DISPOSAL:

Not applicable.

9.0 REPORT WRITING:

9.1 The 1st Page of the report shall be as per the format shown in Annexure – 1.
9.2 Write your program with output.

THE NEOTIA UNIVERSITY

ANNEXURE-1

NAME: _____

ROLL NO.:_____ DEPARTMENT: _____

DATE OF ASSIGNMENT: _____

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TITLE: _____

OBJECTIVE:_____

Marks Obtained

Signature of the Sessional in - Charge

THE NEOTIA UNIVERSITY

WORK INSTRUCTION

1.0 ASSIGNMENT NO.: 22

2.0 ASSIGNMENT NAME: Write a 'C' program to store the name, roll no. & marks in 3 subjects of students using structure. Print the names of all students with average greater than 60%.

3.0 OBJECTIVE: 'C' program to store the name, roll no. & marks in 3 subjects of students using structure. Print the names of all students with average greater than 60%.

4.0 ALGORITHM :

```
struct student
{ char name[30];
  int roll,marks[3],avg;};
main()
{ struct student s[100];
  int i,j,n,sum;
  printf("\nEnter how many student(s) u want to store:");
  scanf("%d",&n);
  for(i=0;i<n;i++)
  { printf("\n\t\tData of %dth student",i);
    printf("\n\t\t====================");
    printf("\nEnter name::",i);
    fflush(stdin);
    gets(s[i].name);
    printf("\nEnter roll::");
    scanf("%d",&s[i].roll);
    for(j=0;j<3;j++)
    { printf("\nEnter marks[%d]::",j+1);
      scanf("%d",&s[i].marks[j]);
    }
  }
  printf("\nThe Student who have got average greater
  than 60% are::\n"); s[i].avg=0;
  for(i=0;i<n;i++)
  { sum=0;
    for(j=0;j<3;j++)
    { sum=sum+s[i].marks[j];
      s[i].avg=sum/3; }
    if(s[i].avg>60)
       puts(s[i].name);
  }
 }
```

5.0 FACILITIES REQUIRED:

5.1 Computer-Hardware
5.2 Turbo C-Software

6.0 PROCEDURE:

6.1 Switch on the UPS and monitor.

6.2 Then switch on the **CPU**.
6.3 After **OS** is loaded, go to **start** menu and click.
6.4 Go to **MS-DOS** prompt and click. You will see : **C:\WINDOWS>**
6.5 Type **cd** and then press Enter key. You will see: **C :\>**
6.6 Type **cd\tc\bin** and then press Enter key. You will see : **C:\TC\BIN>**
6.7 Type **tc** and then press Enter key. Open **tc** editor window.
6.8 Type your programs and after typing, go to **file** menu and click. Then go to **save as** menu and click. After clicking, you will enter your programs name and click **Ok** button.
6.9 Go to **compile** menu and click **compile option**. After successfully compilation, you will go to **run** menu and click **run** option.
6.10 Your output result will display.

7.0 SAFETY:

7.1 Properly shutdown the machine follows by those steps.
- **7.1.1** Go to **start** menu and click.
- **7.1.2** Click **shut down** option.
- **7.1.3** Show a **shut down** window.
- **7.1.4** Click the **radio** button corresponding to **shut down** option.
- **7.1.5** Click **OK** button.

7.2 Floppy/CD is not to be used.

8.0 DISPOSAL:

Not applicable.

9.0 REPORT WRITING:

9.1 The 1st Page of the report shall be as per the format shown in Annexure – 1.
9.2 Write your program with output.

THE NEOTIA UNIVERSITY

ANNEXURE-1

NAME: _____

ROLL NO.:_____ DEPARTMENT: _____

DATE OF ASSIGNMENT: _____

DATE OF SUBMISSION: _____

TITLE: _____

OBJECTIVE:_____

Marks Obtained

Signature of the Sessional in - Charge

THE NEOTIA UNIVERSITY

WORK INSTRUCTION

1.0 ASSIGNMENT NO.: 23

2.0 ASSIGNMENT NAME: Write a 'C' program to copy a disk file into another disk file using command line arguments.

3.0 OBJECTIVE: 'C' program to copy a disk file into another disk file using command line arguments.

4.0 ALGORITHM :

```
main(int argc,char * argv[])
{
  FILE *fs,*ft;
  char ch;
  if(argc!=3)
  {
    printf("\nImproper number of arguments");exit(0);
  }
  fs=fopen(argv[1],"r");
  if(fs==NULL)
  {
    printf("\nCannot open source file.");exit(0);
  }
  ft=fopen(argv[2],"w");
  if(ft==NULL)
  {
    printf("\nCannot open source file.");
    fclose(fs);exit(0);
  }
  while(1)
  {
    ch=fgetc(fs);
    if(ch==EOF) break;
    fputc(ch,ft);
  }
  fclose(fs);fclose(ft);
}
```

5.0 FACILITIES REQUIRED:

5.1 Computer-Hardware
5.2 Turbo C-Software

6.0 PROCEDURE:

6.1 Switch on the **UPS** and **monitor**.
6.2 Then switch on the **CPU**.
6.3 After **OS** is loaded, go to **start** menu and click.
6.4 Go to **MS-DOS** prompt and click. You will see : **C:\WINDOWS>**
6.5 Type **cd** and then press Enter key. You will see: **C :\>**
6.6 Type **cd\tc\bin** and then press Enter key. You will see : **C:\TC\BIN>**
6.7 Type **tc** and then press Enter key. Open **tc** editor window.

6.8 Type your programs and after typing, go to **file** menu and click. Then go to **save as** menu and click. After clicking, you will enter your programs name and click **Ok** button.

6.9 Go to **compile** menu and click **compile option**. After successfully compilation, you will go to **run** menu and click **run** option.

6.10 Your output result will display.

7.0 SAFETY:

7.1 Properly shutdown the machine follows by those steps.

7.1.1 Go to **start** menu and click.

7.1.2 Click **shut down** option.

7.1.3 Show a **shut down** window.

7.1.4 Click the **radio** button corresponding to **shut down** option.

7.1.5 Click **OK** button.

7.2 Floppy/CD is not to be used.

8.0 DISPOSAL:

Not applicable.

9.0 REPORT WRITING:

9.1 The 1st Page of the report shall be as per the format shown in Annexure – 1.

9.2 Write your program with output.

THE NEOTIA UNIVERSITY

ANNEXURE-1

NAME: _____

ROLL NO.:_____ DEPARTMENT: _____

DATE OF ASSIGNMENT: _____

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TITLE: _____

OBJECTIVE:_____

Marks Obtained

Signature of the Sessional in - Charge

THE NEOTIA UNIVERSITY

WORK INSTRUCTION

1.0 ASSIGNMENT NO.: 24

2.0 ASSIGNMENT NAME: Write a 'C' program to count the number of lines, words and characters in a given File.

3.0 OBJECTIVE: 'C' program to count the number of lines, words and characters in a given File.

4.0 ALGORITHM :

```
main()
{ FILE *fp;
  int nol=0,now=0,noc=0;char ch;
  fp=fopen("ass23.cpp","r");
  if(fp==NULL)
  {printf("\nCannot open file");exit(0);}
  while(1)
  {ch=fgetc(fp);
   if(ch==EOF) break;
   if(ch=='\n') nol++;
   else if(ch==' ') now++;
   else noc++;
  }
  fclose(fp);
  printf("\nThe no.of line = %d",nol);
  printf("\nThe no.of word = %d",now);
  printf("\nThe no.of character = %d",noc);
}
```

5.0 FACILITIES REQUIRED:

5.1 Computer-Hardware
5.2 Turbo C-Software

6.0 PROCEDURE:

6.1 Switch on the **UPS** and **monitor**.
6.2 Then switch on the **CPU**.
6.3 After **OS** is loaded, go to **start** menu and click.
6.4 Go to **MS-DOS** prompt and click. You will see : **C:\WINDOWS>**
6.5 Type **cd** and then press Enter key. You will see: **C :\>**
6.6 Type **cd\tc\bin** and then press Enter key. You will see : **C:\TC\BIN>**
6.7 Type **tc** and then press Enter key. Open **tc** editor window.

6.8 Type your programs and after typing, go to **file** menu and click. Then go to **save as** menu and click. After clicking, you will enter your programs name and click **Ok** button.
6.9 Go to **compile** menu and click **compile option**. After successfully compilation, you will go to **run** menu and click **run** option.
6.10 Your output result will display.

7.0 SAFETY:

7.1 Properly shutdown the machine follows by those steps.

7.1.1 Go to **start** menu and click.
7.1.2 Click **shut down** option.
7.1.3 Show a **shut down** window.
7.1.4 Click the **radio** button corresponding to **shut down** option.
7.1.5 Click **OK** button.

7.2 Floppy/CD is not to be used.

8.0 DISPOSAL:

Not applicable.

9.0 REPORT WRITING:

9.1 The 1st Page of the report shall be as per the format shown in Annexure – 1.
9.2 Write your program with output.

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ANNEXURE-1

NAME: _____

ROLL NO.:_____ DEPARTMENT: _____

DATE OF ASSIGNMENT: _____

DATE OF SUBMISSION: _____

TITLE: _____

OBJECTIVE:_____

Marks Obtained

Signature of the Sessional in - Charge

THE NEOTIA UNIVERSITY

WORK INSTRUCTION

1.0 ASSIGNMENT NO.: 25

2.0 ASSIGNMENT NAME: Write a 'C' program to display the frequency of characters in a given file.

3.0 OBJECTIVE: 'C' program to display the frequency of characters in a in a given file.

4.0 ALGORITHM :

```
main()
{
 int f[256],i;
 char c,sfile[20];
 FILE *fp;
 printf("\nEnter a file name:");
 scanf("%s",sfile);
 if((fp=fopen(sfile,"r"))==NULL)
 {
     printf("\nCan not open file %s",sfile);
     exit(0);
 }
/* initializing count */
 for(i=0;i<256;i++)
     f[i]=0;
 while((c=getc(fp))!=EOF)
 {
     ++f[c]; /* counter corresponding current
                ASCII character is incremented */
 }
/* printing result */
for(i=0;i<256;i++)
{
     if(f[i]>0)
          printf("\n%c occurs %d times.",i,f[i]);
 }
}
```

5.0 FACILITIES REQUIRED:

5.1 Computer-Hardware
5.2 Turbo C-Software

6.0 PROCEDURE:

6.1 Switch on the **UPS** and **monitor**.
6.2 Then switch on the **CPU**.
6.3 After **OS** is loaded, go to **start** menu and click.
6.4 Go to **MS-DOS** prompt and click. You will see : **C:\WINDOWS>**
6.5 Type **cd** and then press Enter key. You will see: **C :\>**
6.6 Type **cd\tc\bin** and then press Enter key. You will see : **C:\TC\BIN>**
6.7 Type **tc** and then press Enter key. Open **tc** editor window.

6.8 Type your programs and after typing, go to **file** menu and click. Then go to **save as** menu and click. After clicking, you will enter your programs name and click **Ok** button.

6.9 Go to **compile** menu and click **compile option**. After successfully compilation, you will go to **run** menu and click **run** option.

6.10 Your output result will display.

7.0 SAFETY:

7.1 Properly shutdown the machine follows by those steps.

7.1.1 Go to **start** menu and click.

7.1.2 Click **shut down** option.

7.1.3 Show a **shut down** window.

7.1.4 Click the **radio** button corresponding to **shut down** option.

7.1.5 Click **OK** button.

7.2 Floppy/CD is not to be used.

8.0 DISPOSAL:

Not applicable.

9.0 REPORT WRITING:

9.1 The 1st Page of the report shall be as per the format shown in Annexure – 1.

9.2 Write your program with output.

THE NEOTIA UNIVERSITY

ANNEXURE-1

NAME: _____

ROLL NO.:_____ DEPARTMENT: _____

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TITLE: _____

OBJECTIVE:_____

Marks Obtained

Signature of the Sessional in - Charge

THE NEOTIA UNIVERSITY

WORK INSTRUCTION

1.0 ASSIGNMENT NO.: 26

2.0 ASSIGNMENT NAME: Write a 'C' program to swap of two variables using call by reference.

3.0 OBJECTIVE: 'C' program to swap of two variables using call by reference.

4.0 ALGORITHM :

```
main()
{ int a,b;
  printf("\nEnter two integer variables:");
  scanf("%d %d",&a,&b);
  printf("\nThe values of two variables before swap:\n");
  printf(" %d %d",a,b);
  swap(&a,&b);
  printf("\nThe values of two variables after swap:\n");
  printf(" %d %d",a,b);
}
void swap(int *x,int *y)
{  int t;
   t=*x;*x=*y;*y=t;
}
```

5.0 FACILITIES REQUIRED:

5.1 Computer-Hardware
5.2 Turbo C-Software

6.0 PROCEDURE:

6.1 Switch on the **UPS** and **monitor**.
6.2 Then switch on the **CPU**.
6.3 After **OS** is loaded, go to **start** menu and click.
6.4 Go to **MS-DOS** prompt and click. You will see : **C:\WINDOWS>**
6.5 Type **cd** and then press Enter key. You will see: **C :\>**
6.6 Type **cd\tc\bin** and then press Enter key. You will see : **C:\TC\BIN>**
6.7 Type **tc** and then press Enter key. Open **tc** editor window.
6.8 Type your programs and after typing, go to **file** menu and click. Then go to **save as** menu and click. After clicking, you will enter your programs name and click **Ok** button.

6.9 Go to **compile** menu and click **compile option**. After successfully compilation, you will go to **run** menu and click **run** option.
6.10 Your output result will display.

7.0 SAFETY:

7.1 Properly shutdown the machine follows by those steps.
7.1.1 Go to **start** menu and click.
7.1.2 Click **shut down** option.

7.1.3 Show a **shut down** window.
7.1.4 Click the **radio** button corresponding to **shut down** option.
7.1.5 Click **OK** button.

7.2 Floppy/CD is not to be used.

8.0 DISPOSAL:

Not applicable.

9.0 REPORT WRITING:

9.1 The 1st Page of the report shall be as per the format shown in Annexure – 1.
9.2 Write your program with output.

THE NEOTIA UNIVERSITY

ANNEXURE-1

NAME: _____

ROLL NO.:_____ DEPARTMENT: _____

DATE OF ASSIGNMENT: _____

DATE OF SUBMISSION: _____

TITLE: _____

OBJECTIVE:_____

Marks Obtained

Signature of the Sessional in - Charge