ANNA UNIVERSITY CHENNAI

AL-AMEEN ENGINEERING COLLEGE

GE6161- COMPUTER PRACTICES LABORATORY

REGULATION-2013

LIST OF EXPERIMENTS:

1. Search, generate, and manipulate data using ms office / open office.
2. Presentation and visualization – graphs, charts, 2d, 3d.
3. Problem formulation, problem solving and flowcharts.
4. C programming using simple statements and expressions
5. Scientific problem solving using decision making and looping.
6. Simple programming for one dimensional and two dimensional arrays.
7. Solving problems using string functions.
8. Programs with user defined functions – includes parameter passing
9. Program using recursive function and conversion from given program to flow chart.
10. Program using structures and unions.

TOTAL: 45 PERIODS

Ex.No:1a

Date:

CREATING ADVERTISEMENT

AIM:

To prepare an advertisement for a company with some specifications.

- Attractive page border.
- Use at least one Clip Art.
- Design name using Word Art.
- Use bullets.

ALGORITHM:

Step 1: Open a blank document.

Step 2: Go to Page Layout→Page Borders→Select Attractive Page Border→Ok

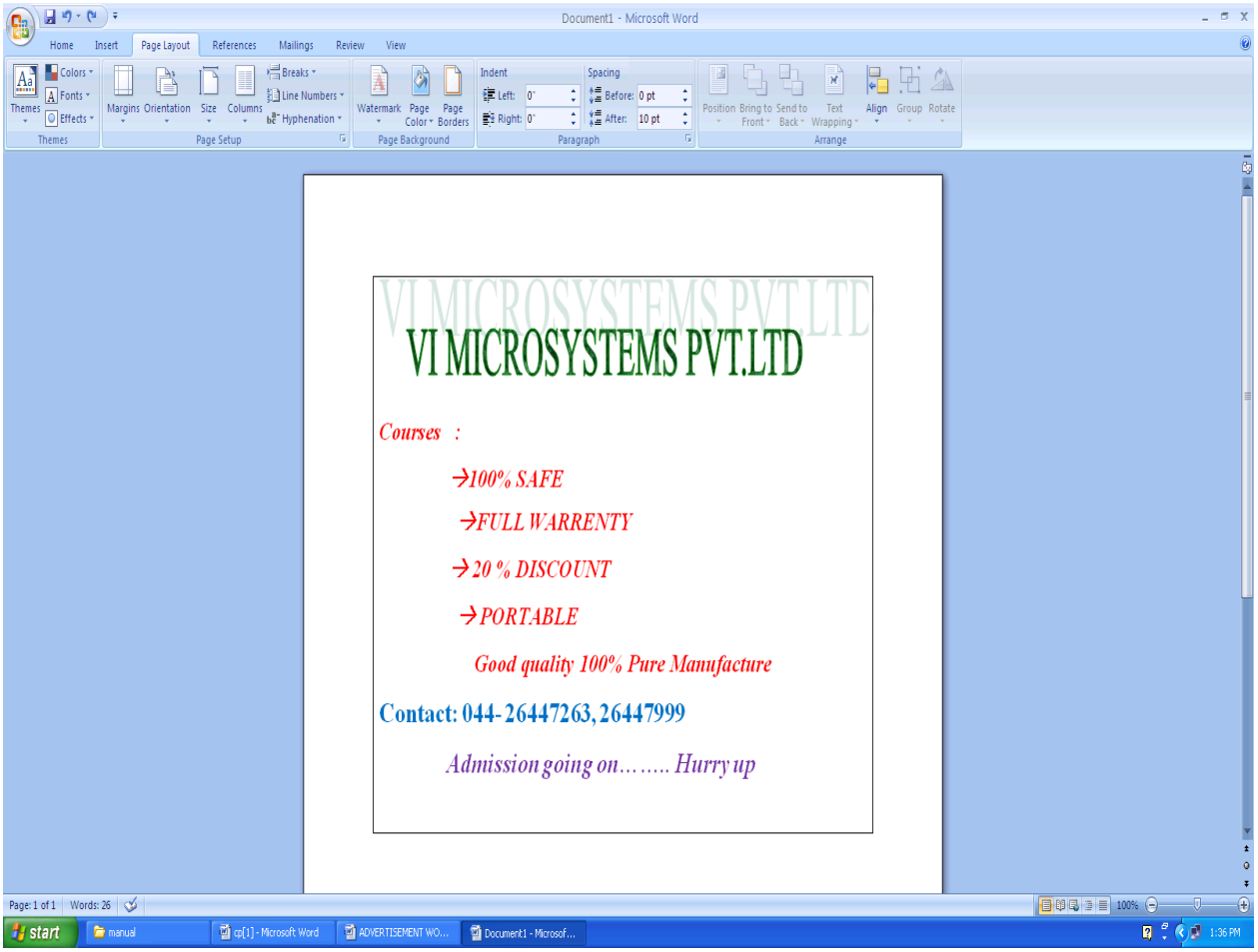
Step 3: Go to Insert→Clip Art→Select Attractive Clip Art→Ok.

Step 4: Type a name and select→go to insert→Word Art→Select a Word Art & click

Step 5: Type a brief company details & Right Click→Select the Bullets → Ok.

Step 6: Save the document.

OUTPUT:-



RESULT:-

Thus the advertisement has been created with some specifications in Microsoft word successfully and verified.

Ex.No:1b

Date:

CURRICULUM VITAE

AIM:

To create curriculum vitae (CV) of a B.E graduate with the specification.

- Table to show qualifications with heading.
- Left & Right margins
- Page numbers in the footer on the right side.
- Use Watermark.

ALGORITHM:

Step 1: Open a blank document.

Step 2: Type a Bio-data briefly then goto Insert →Table→Insert→Table→Select no of rows & columns→Ok for qualifications.

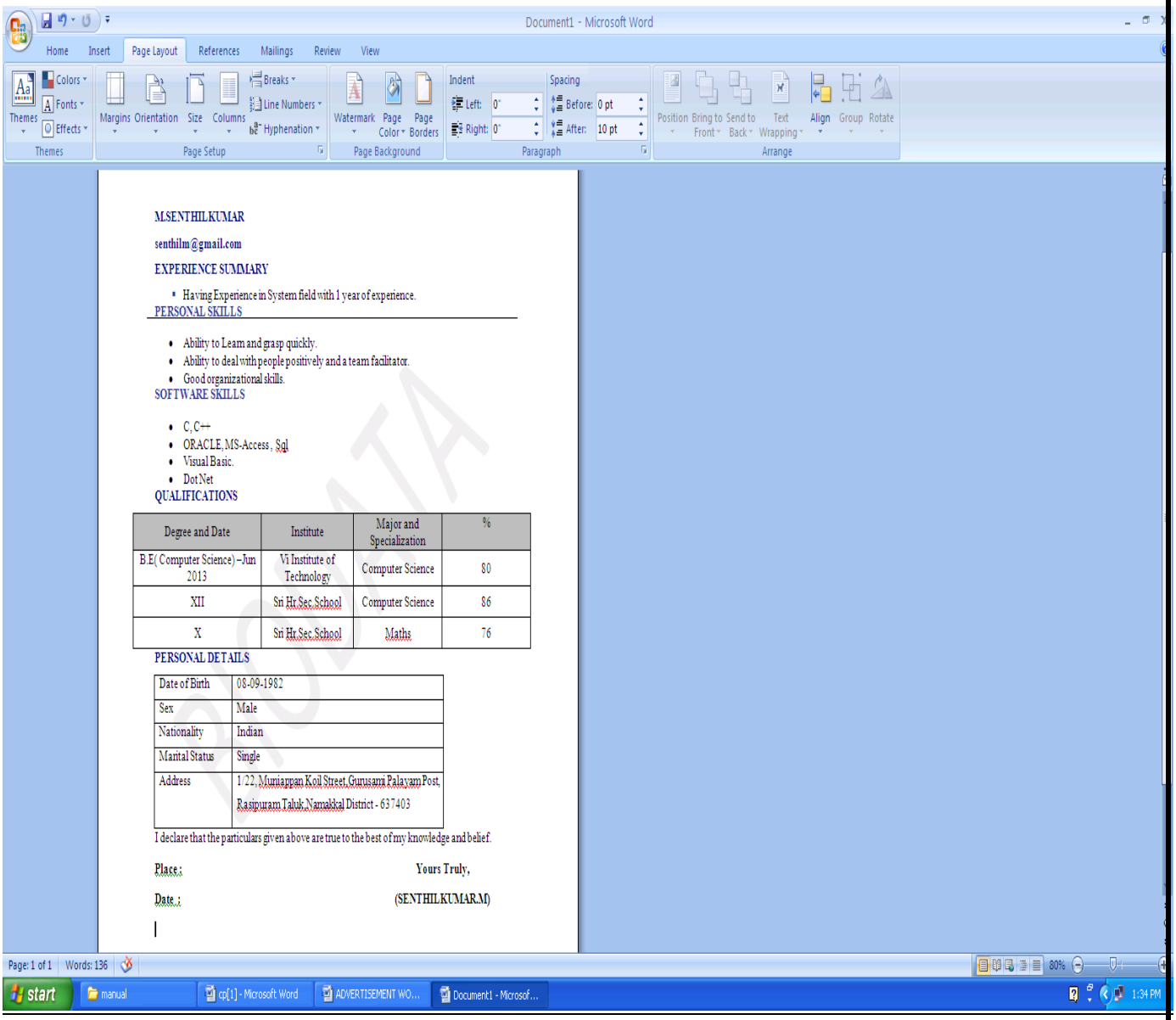
Step 3: Go to Page Layout→Margins→Assign→Left & Right Margins

Step 4: Go to Insert →Page Numbers→Select footer on the right side→Ok.

Step 5: Go to Page Layout→Watermark→Customize text as Bio-data→Ok.

Step 6: Save the Document.

OUTPUT:



RESULT:-

Thus the curriculum vitae (CV) has been created with some specifications in Microsoft word successfully and verified.

Ex.No:1c

Date:

SCIENTIFIC NOTATIONS

AIM:

To create a MS-WORD document for the following scientific notation

i. A= $a_0^2 + a_1^3 + b_0^2 + b_1^{-4}$

ii. $x_1\ y_1 + x\frac{(y+z)^2}{x^2+y^2}$

iii. $x = \frac{-b \pm \sqrt{b^2-4ac}}{2a}$

iv. $T(x) = \sum_{i=1}^{m}\sum_{j=1}^{n} c_{ij}\ \ t_{ij}\ \ \ x_{ij}$

v. $2c_2H_6(9) + 7o_2(g) \rightarrow 4co_2\ (g) + 6H_2o$

ALGORITHM:

Step 1: Open a blank document.

Step 2: Go to Insert→Equation→Insert Equation→Select the specific format.

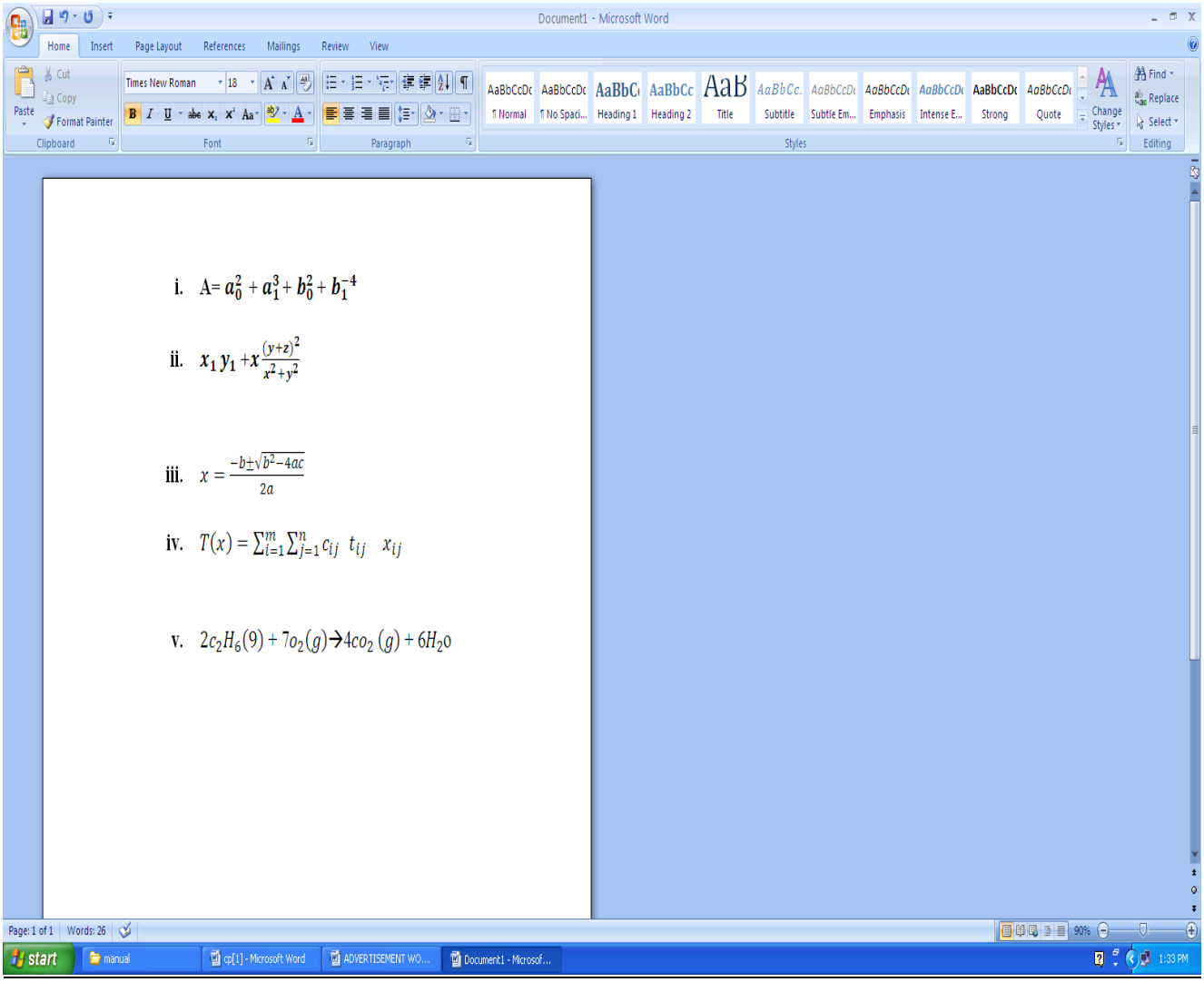
For eg , e^x for a^2,a^{-4}……..

Step 3: Select $\sum$ for $\sum_{i=1}^{m}\sum_{j=1}^{n}$

Step 4: Select ─ for $\frac{x(y+z)^2}{x^2+y^2}$

Step 5: Save the document.

OUTPUT:



RESULT:-

Thus the scientific notations has been created in Microsoft word successfully and verified.

Ex.No:2

Date: # CREATING TIME TABLE & CONVERSION

AIM:

To prepare a class timetable using Merge rows, Split row, Insert rows - columns etc and convert the table into text format.

ALGORITHM:

Step1: Open a blank document.

Step 2: Insert→Table→Insert Table→Select No of rows & columns→Ok.

Step 3: Select two cells Right click → Merge Cells.

Select one cell Right click→Split Cell

Select one row Right click →Insert→Insert One row above or below

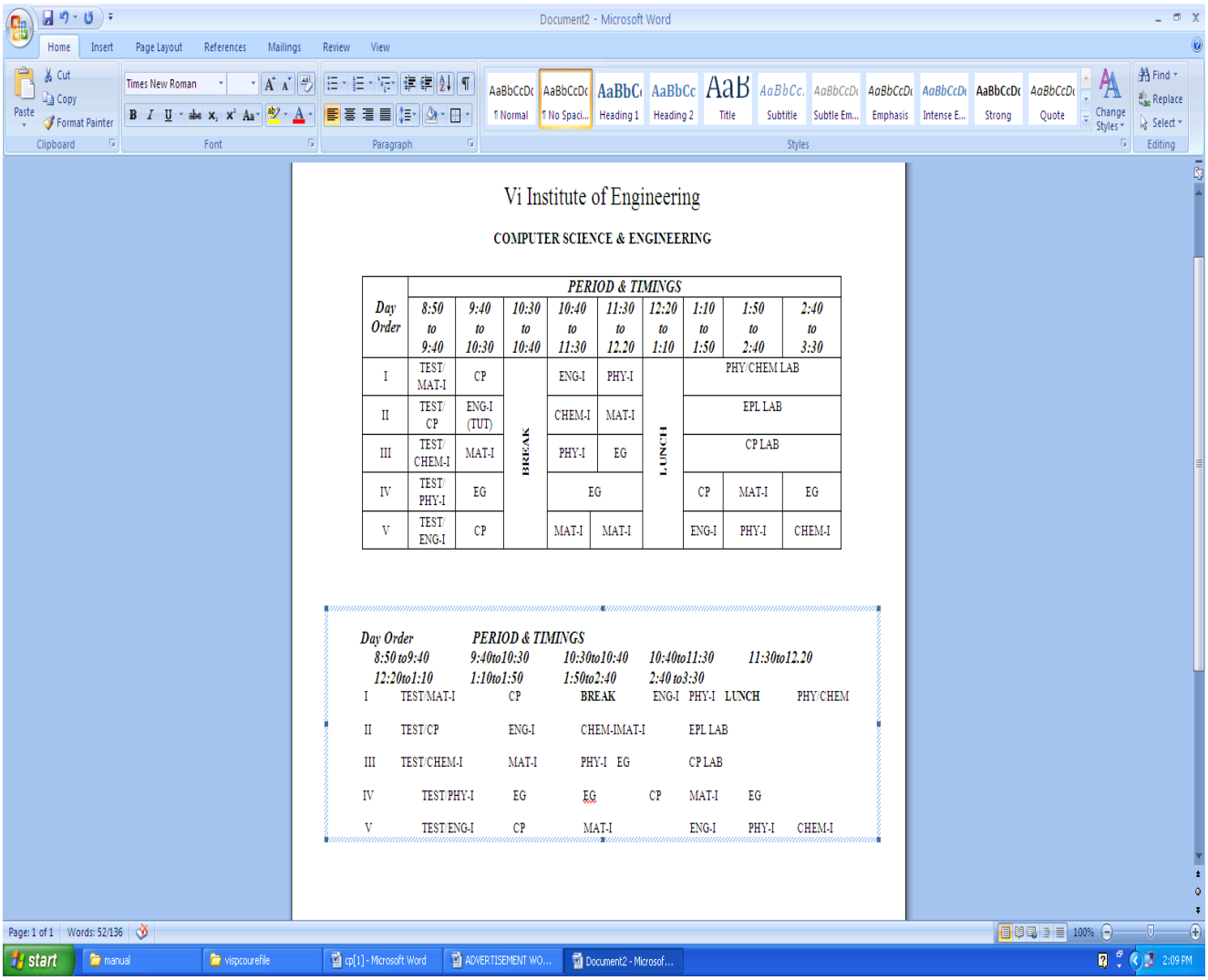
Select one column Right click →Insert→Insert One column left or right

Step 4: Type a Class Timetable with Headings

Step 5: Go to Layout→Convert to text→Select Tabs→ Ok

Step 6: Save the document as Table and Text Format

OUTPUT:



Vi Institute of Engineering

COMPUTER SCIENCE & ENGINEERING

Day Order	PERIOD & TIMINGS								
	8:50 to 9:40	9:40 to 10:30	10:30 to 10:40	10:40 to 11:30	11:30 to 12.20	12:20 to 1:10	1:10 to 1:50	1:50 to 2:40	2:40 to 3:30
I	TEST/ MAT-I	CP	BREAK	ENG-I	PHY-I	LUNCH	PHY/CHEM LAB		
II	TEST/ CP	ENG-I (TUT)		CHEM-I	MAT-I		EPL LAB		
III	TEST/ CHEM-I	MAT-I		PHY-I	EG		CP LAB		
IV	TEST/ PHY-I	EG		EG			CP	MAT-I	EG
V	TEST/ ENG-I	CP		MAT-I	MAT-I		ENG-I	PHY-I	CHEM-I

Day Order	PERIOD & TIMINGS				
	8:50 to9:40	9:40to10:30	10:30to10:40	10:40to11:30	11:30to12.20
	12:20to1:10	1:10to1:50	1:50to2:40	2:40 to3:30	
I	TEST/MAT-I	CP	BREAK	ENG-I PHY-I	LUNCH PHY/CHEM
II	TEST/CP	ENG-I	CHEM-IMAT-I	EPL LAB	
III	TEST/CHEM-I	MAT-I	PHY-I EG	CP LAB	
IV	TEST/PHY-I	EG	EG	CP MAT-I	EG
V	TEST/ENG-I	CP	MAT-I	ENG-I	PHY-I CHEM-I

RESULT:-

Thus the class time table has been created & table is converted into text in Microsoft word successfully and verified.

Ex.No:3a

Date:

MAIL MERGE & LETTER PREPARATION

AIM:-

To create a WORD document to call letters for an interview using Mail Merge send to10 candidates

ALGORITHM:-

STEP 1: Open a blank document

STEP 2: Goto Mailings in Menu → Start Mail merge → Letters

STEP 3: Type a interview call letter with FROM address and leave some Space for TO address

STEP 4: Goto →Select recipients → Type a new list →Customize the Columns → Ok

STEP 5: Type a 10 address new some fields→Ok→save it

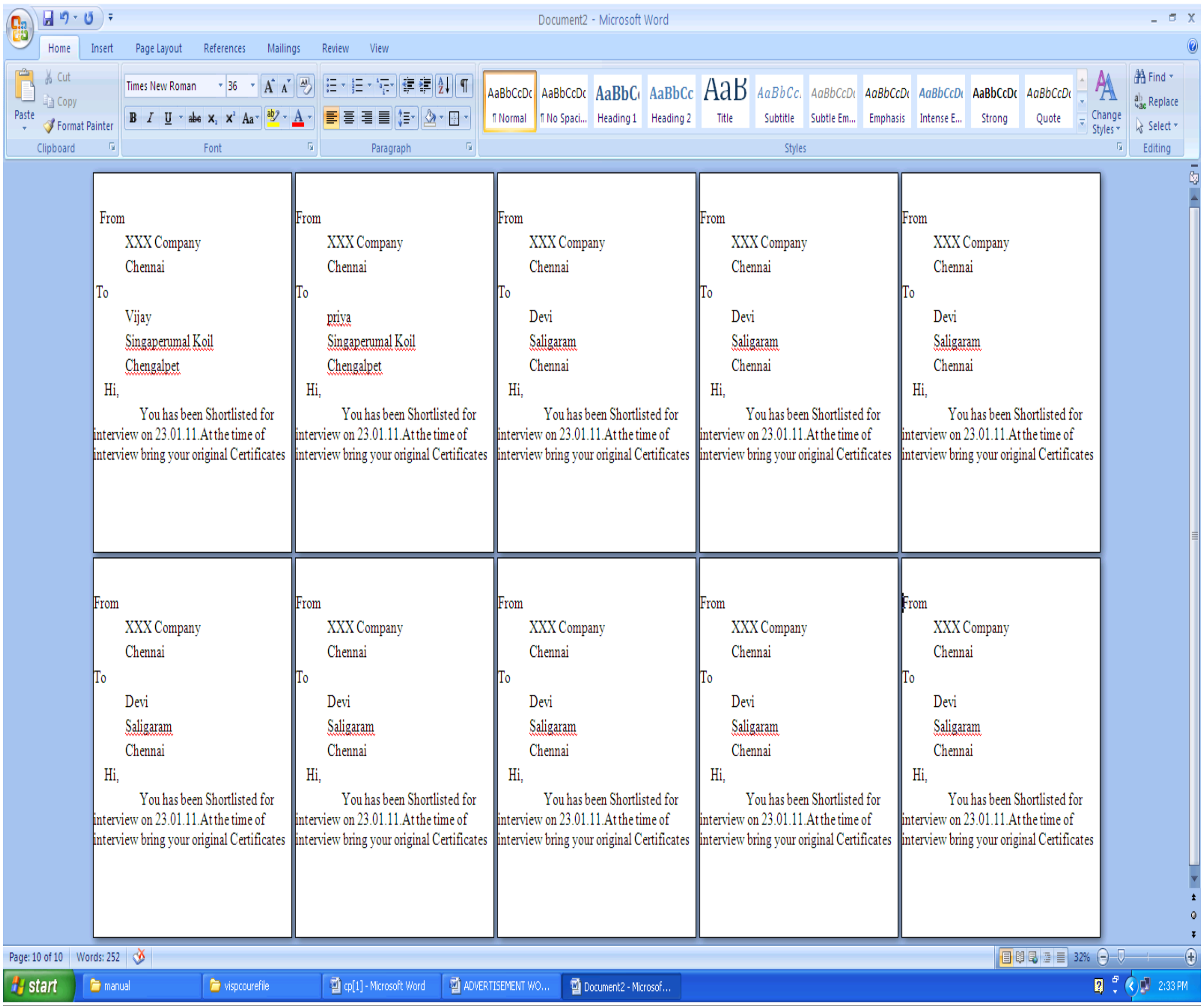
STEP 6: Goto →Select recipients → Use Existing list →open a file →Ok

STEP 7: Under the TO Address insert the Merge fields & preview the results

STEP 8: Goto Finish Merge→Edit individual Documents → All →Ok

STEP 9: Save the document

OUTPUT:



RESULT:-

Thus the Mail Merge has been created in Microsoft word successfully and Verified.

Ex.No:3b

Date:

VISITING CARD

AIM:-

To design a visiting card for a Managing Director of a company with the Size of 3.25 inch * 2.5 inch

ALGORITHM:-

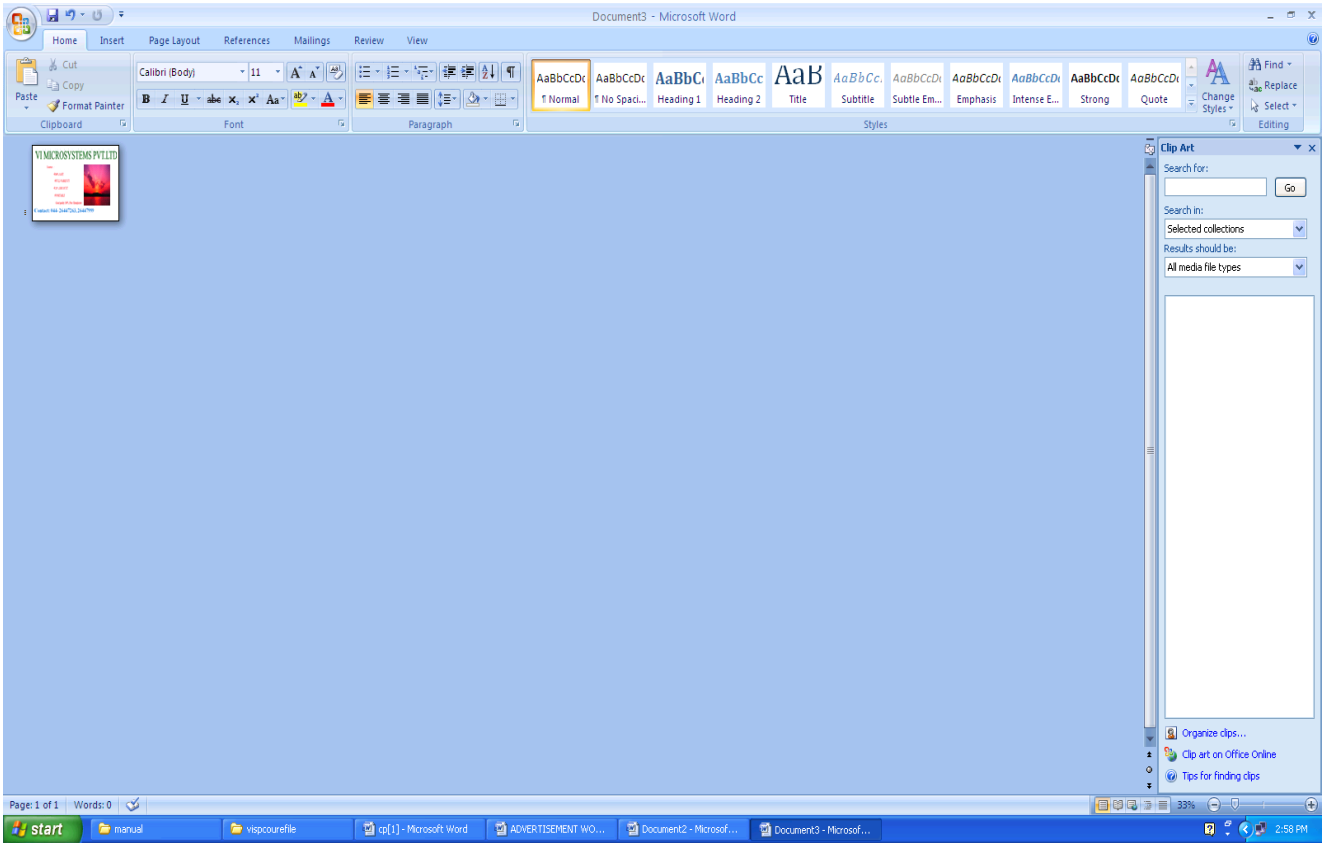
STEP 1: Open a blank document

STEP 2: Goto Page layout →Size → More Paper Size → Assign width 3.25 & height is 2.5 →Ok

STEP 3: Type a visiting card with address and some images

STEP 4: Save the document

OUTPUT:



RESULT:-

Thus the visiting card for a Managing Director of a company has been created in Microsoft word successfully and verified.

Ex.No:4

Date:

DRAWING FLOW CHART

AIM:-

To create a flowchart in WORD to find the greatest of three numbers

ALGORITHM:-

STEP 1: Open a blank document

STEP 2: Goto Insert → shapes→Flowchart

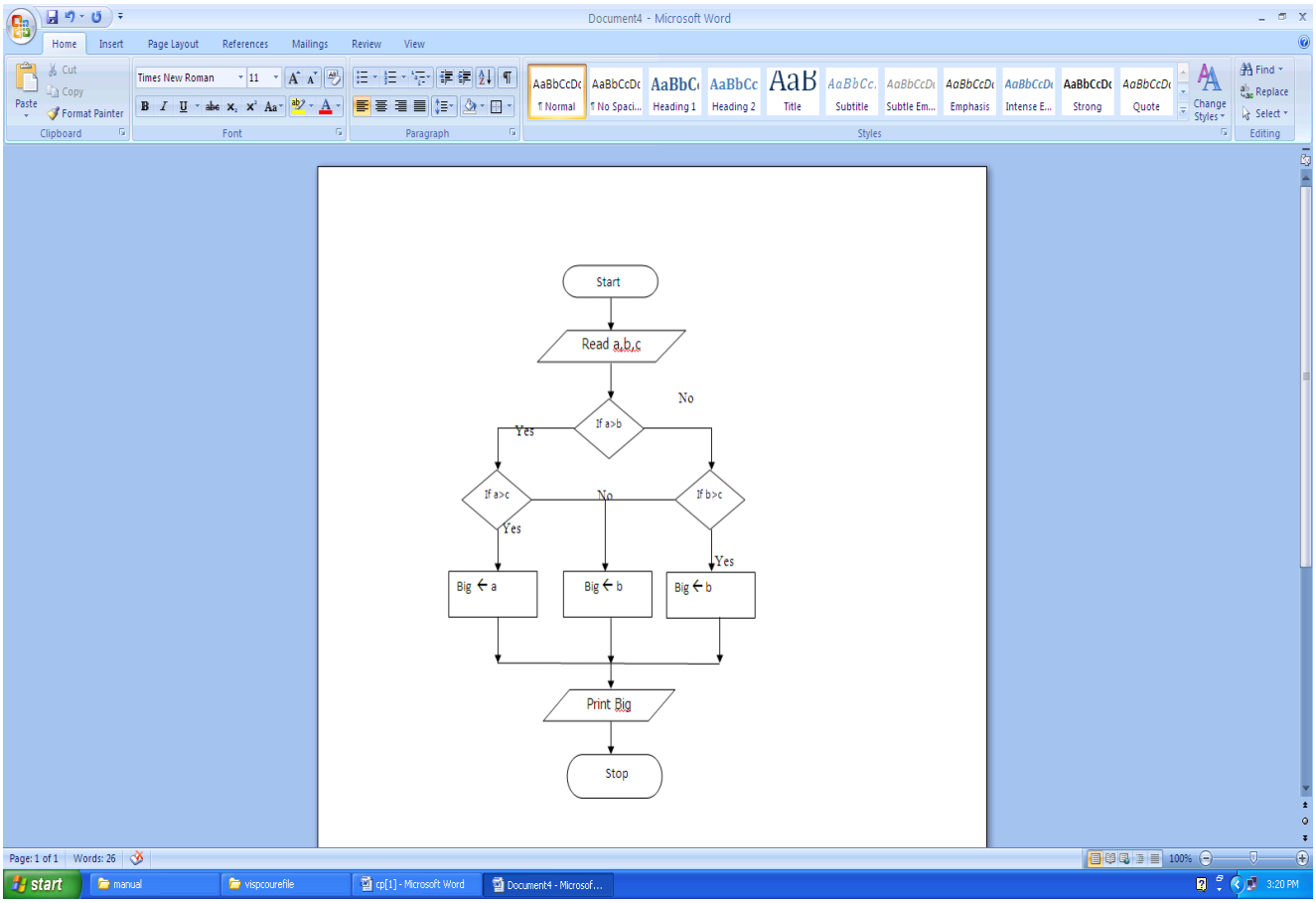
STEP 3: Insert the Correct shapes for Input box decision box ,Calculation box and Output box

STEP 4: Select the box and Right Click → Add Text

STEP 5: Use Arrows for Link

STEP 6: Save the document

OUTPUT:



RESULT:-

Thus the flowchart in WORD to find the greatest of three numbers has been created in Microsoft word successfully and verified.

Ex.No:5

Date:

SPREAD SHEET CHART (Line,XY,Bar and Pie)

AIM:-

To create a EXCEL to analyze the marks of the students of a class using various Chart (Line,XY,Bar and Pie).

ALGORITHM:-

STEP 1: Open a Microsoft Excel Worksheet.

STEP 2: Place the Cursor on the desired cell and start entering the required Student details

STEP 3: To find the Total and Average using formula (Total = m1+m2+m3)

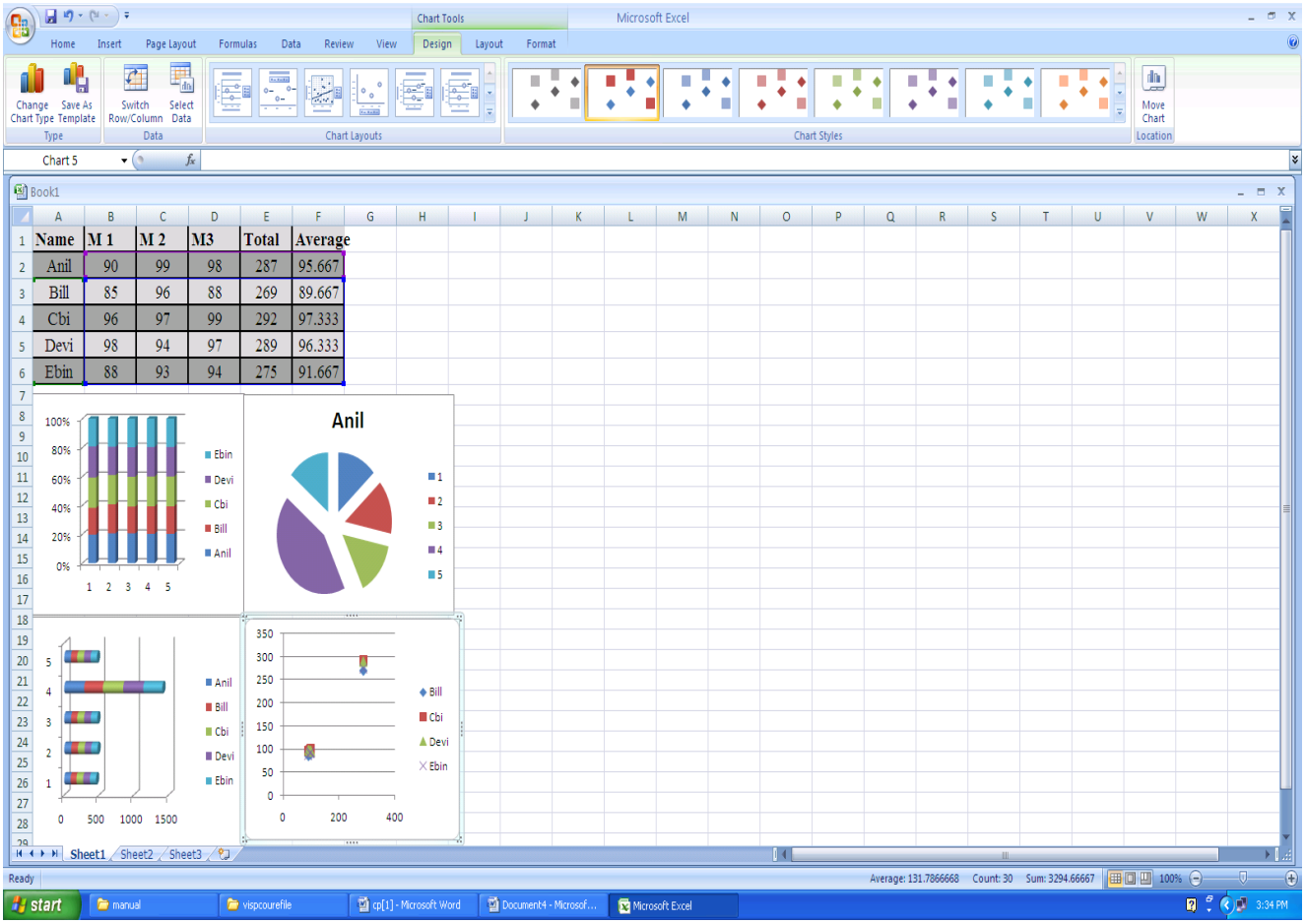
Average = (Total / 3)

STEP 4: Select the table and goto Insert → Chart → Choose one type of Chart

STEP 5: Reselect the table again and Insert → Chart → Choose another type of Chart like wise do for all charts

STEP 6: Save the Excel Sheet

OUTPUT:



RESULT:-

Thus the **Spreadsheet** charts (Line,XY,Bar and Pie)for students marks has been created Successfully and verified.

Ex.No:6

Date:

SPREAD SHEET FORMULA EDITIR

AIM:-

To create a spreadsheet to calculate HRA ,DA,TA,PF,LIC.Gross Salary ,Net Salary from the given data

HRA=18% of basic Pay **TA**=12% of Basic Pay **DA**=15% of Basic Pay

PF =10% of Basic Pay **LIC** =7% of Basic Pay **Deduction**= PF + LIC

Gross Salary = Basic Pay + HRA + DA + TA **Net Salary** = Gross Salary – Deduction

ALGORITHM:-

STEP 1: Open a Microsoft Excel Worksheet

STEP 2: Type the details about the employees and Basic Salary.

STEP 3: For HRA & DA, move to corresponding row & column and assign the Formula =18/100* BS (row & column) For DA ,move to corresponding row & column and assign theormula =15/100* BS (row & column)

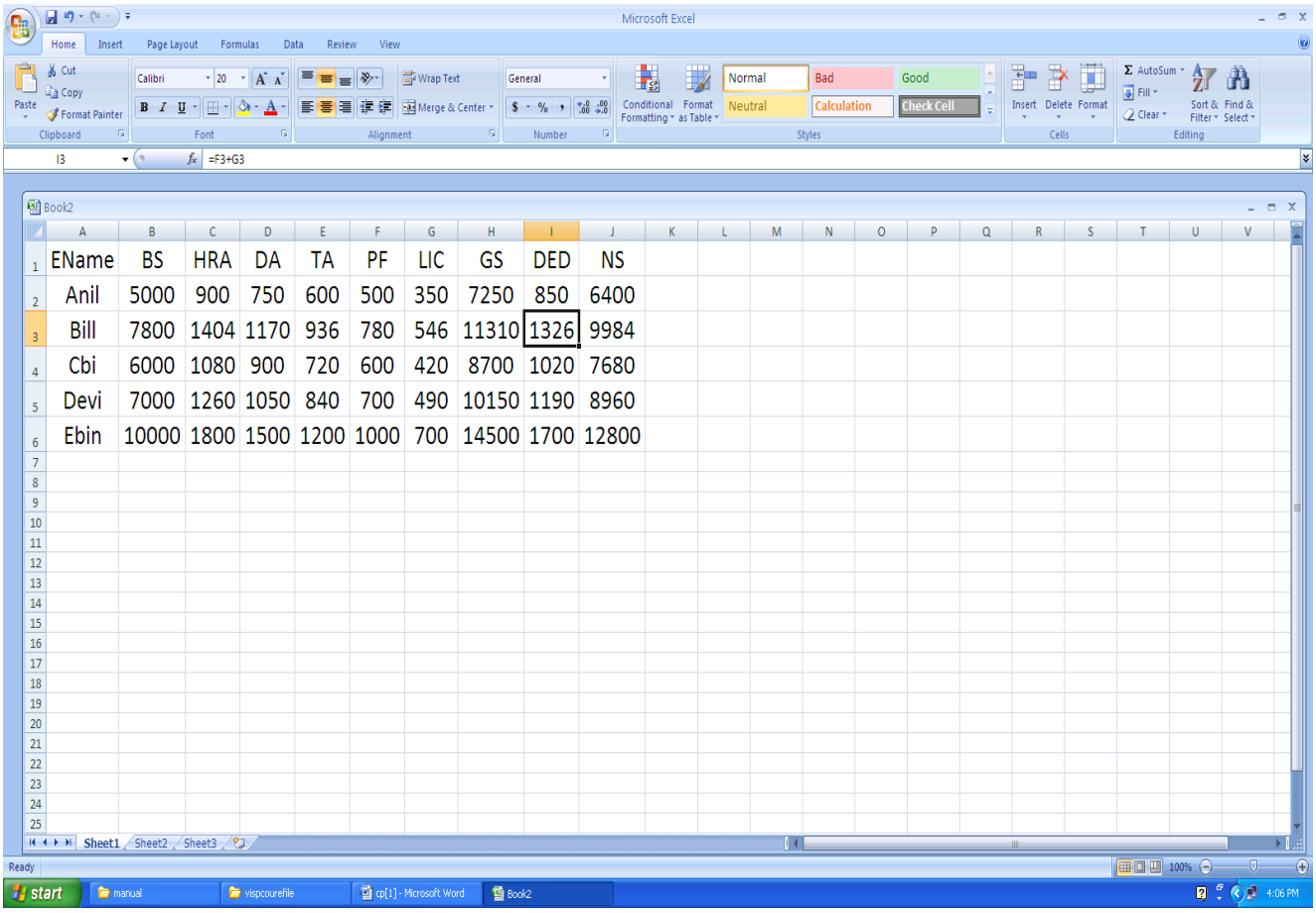
STEP 4: For TA & PF, move to corresponding row & column and assign the formula =12/100* BS (row & column) For PF ,move to corresponding row & column And assign the formula =10/100* BS (row & column)

STEP 5: For LIC & GS, move to corresponding row & column and assign the formula =7/100* BS,For GS ,move to corresponding row & column and assign the formula = Basic Pay + HRA + DA + TA

STEP 6: Likewise for Deduction and Net Salary

STEP 7: Save the ExcelSheet

OUTPUT:



EName	BS	HRA	DA	TA	PF	LIC	GS	DED	NS
Anil	5000	900	750	600	500	350	7250	850	6400
Bill	7800	1404	1170	936	780	546	11310	1326	9984
Cbi	6000	1080	900	720	600	420	8700	1020	7680
Devi	7000	1260	1050	840	700	490	10150	1190	8960
Ebin	10000	1800	1500	1200	1000	700	14500	1700	12800

RESULT:-

Thus the **Spreadsheet** to calculate HRA ,DA,TA,PF,LIC.Gross Salary ,Net Salary from the given data has been created Successfully and verified.

Ex.No:7

Date:

PROTECT SPREAD SHEET

AIM:-

To create a spreadsheet insert a Picture and apply the option of protecting the document

ALGORITHM:-

STEP 1: Open a Microsoft Excel Worksheet

STEP 2: Goto Insert → Select the Picture →Insert and type some Text.

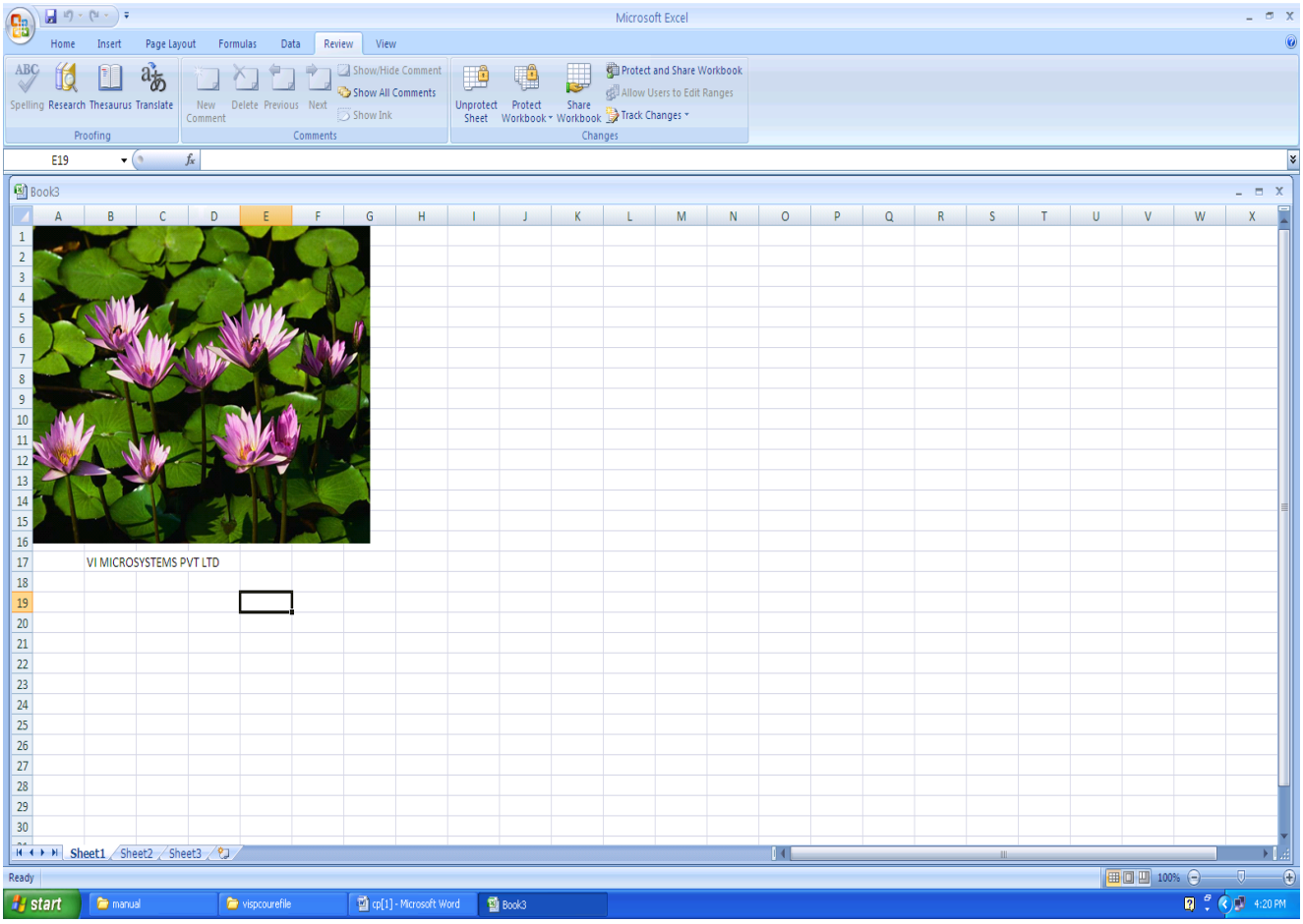
STEP 3: Goto Review → Protect Sheet → Set a Password & Reenter the Password

STEP 4: For Unprotect again Goto Review →UnProtect Sheet → Type Password

STEP 5: Modify the Worksheet and protect it

STEP 6: Save the ExcelSheet

OUTPUT:



RESULT:-

Thus the inclusion of object in worksheet and protected successfully and Verified.

Ex.No:8

Date:

SPREAD SHEET SORTING & IMPORT /EXPORT FEATURES

AIM:-

To create a spreadsheet to sort the names and sort the numbers and convert the numbers

Decimal numbers:- 243,46,173,425,625

Binary numbers:-11011, 1110110101, 11001, 11111

ALGORITHM:-

STEP 1: Open a Microsoft Excel Worksheet.

STEP 2: Type some list of names in randomly

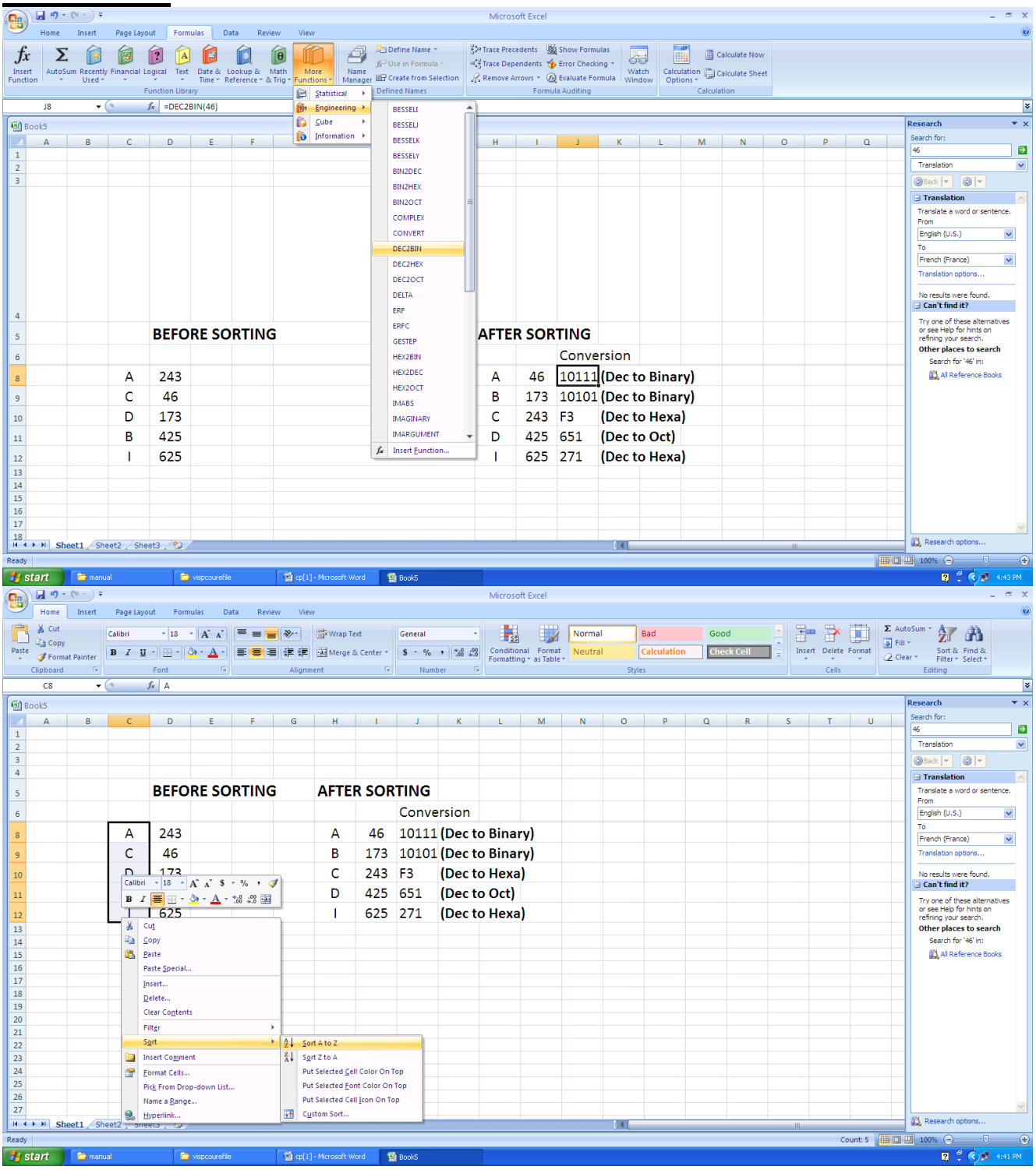
STEP 3: Select the names and Right click → Sort→Select the names and sort In Ascending Order (A to Z)

STEP 4: Select the numbers and Right click → Sort→Select the numbers and sort In Ascending Order (Small to Large)

STEP 5: For Conversion Goto Formula →Select More Functions→Engineering→Select DEC2BIN, DEC2HEX,DEC2OCT and BIN2DEC,BIN2HEX,BIN2OCT etc

STEP 6: Save the ExcelSheet

OUTPUT:



RESULT:-

Thus the worksheet name & Numbers are sorted and Conversion (Import/Export Features)has been created successfully and Verified.

Ex.No:1

Date:

AREA AND CIRCUMFERENCE OF THE CIRCLE

AIM:-

To write a C program to find the area and circumference of the circle

ALGORITHM:-

STEP 1: Start the Program

STEP 2: Input the radius of the Circle.

STEP 3: Find the area and circumference of the circle using the formula

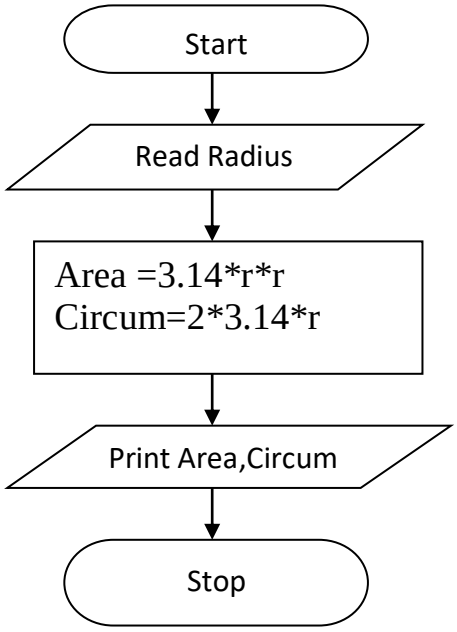
Area =3.14*r*r

Circum=2*3.14*r

STEP 4: Print the area and Circumference

STEP 5: Stop the Program

FLOW CHART:-



PROGRAM:-

```
//AREA AND CIRCUMFERENCE OF CIRCLE
#include<stdio.h>
#include<conio.h>
void main()
{
float r,area,circum;
clrscr();
printf("\n Enter the radius of the Circle");
scanf("%f",&r);
area=3.14*r*r;
circum=2*3.14*r;
printf("\n Area=%f",area);
printf("\n Circumference=%f",circum);
getch();
}
```

OUTPUT:

Enter the radius of the Circle

5

Area=78.500000

Circumference=31.400000

RESULT:

Thus the C program to find the area and circumference of the circle has been created successfully and Verified.

Ex.No:2

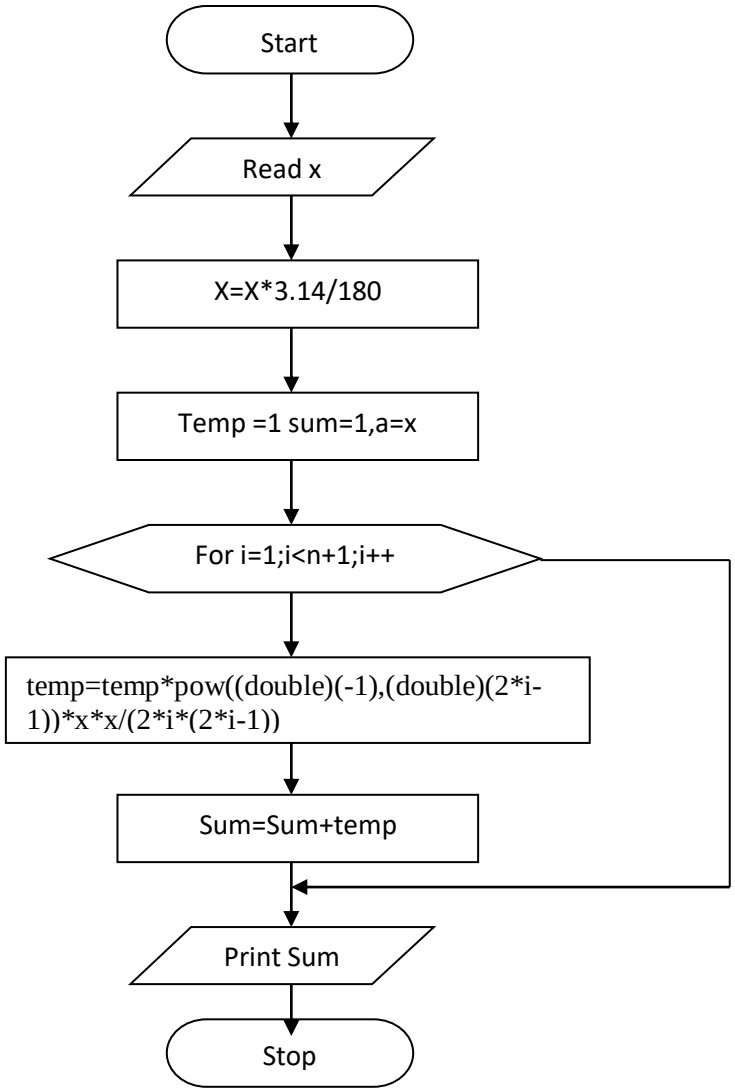
Date: # PROGRAM FOR COSINE SERIES

AIM:-

To write a C program to find the cosine series of the value x

ALGORITHM:-

STEP 1: Start the program.
STEP 2: Enter the value of X.
STEP 3: Convert X into radian.
STEP 4: Set a loop.
STEP 5: Find the value of Cosine using the formula
Temp=temp*pow((double)(-1),(double)(2*i-1))*x*x/(2*i*(2*i-1))
Sum=sum+temp
STEP 6: After the execution of the loop print the Cosine value.
STEP 7: Stop the program.



PROGRAM:

```
//FIND THE COSINE SERIES
#include<stdio.h>
#include<conio.h>
#include<math.h>
main()
{
 float x,a,sum,temp;
 int i,no=20,mul;
 clrscr();
 printf("\n Enter the value of x ");
 scanf("%f",&x);
 a=x;
 x=x*3.14/180;
 temp=1;sum=1;
 for(i=1;i<no+1;i++)
 {
  temp=temp*pow((double)(-1),(double)(2*i-1))*x*x/(2*i*(2*i-1));
  sum=sum+temp;
}
  printf(" \n The cosine value of %f is %f",a,sum);
  getch();
 }
```

OUTPUT:

```
Enter the value of x
45
The cosine value of 45.000000 is 0.707176
```

RESULT:-

Thus the C program to find the cosine series is created successfully and verified.

Ex.No:3

Date:

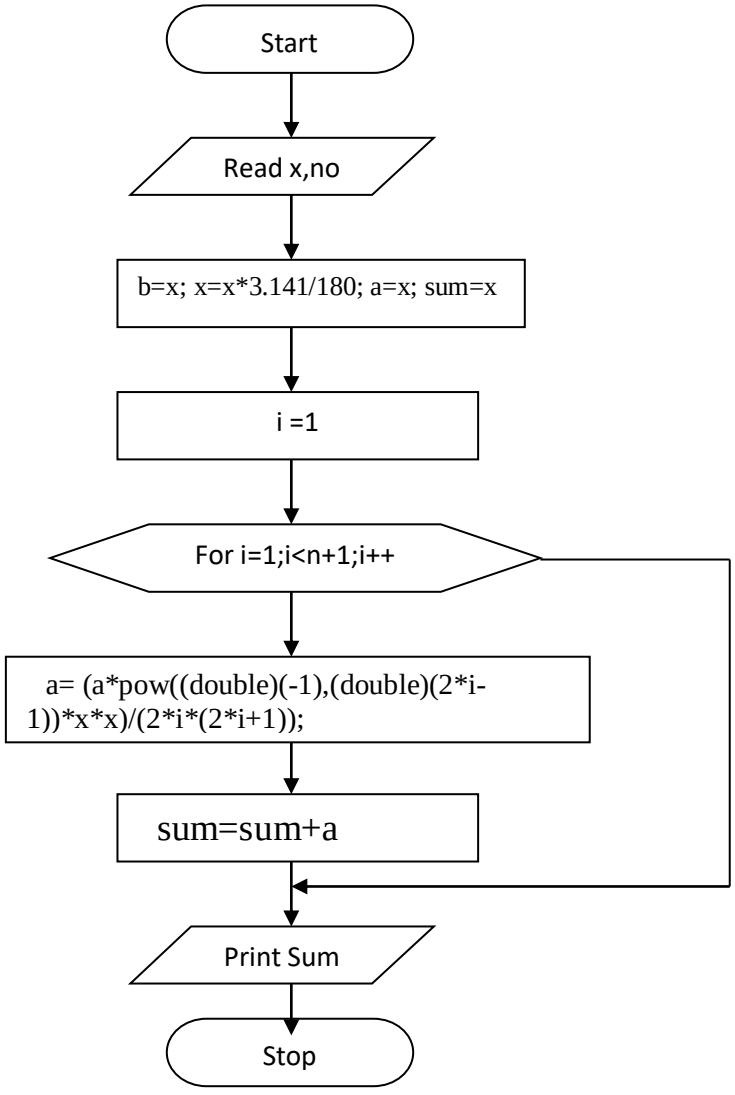
PROGRAM FOR SINE SERIES

AIM:-

To write a C program to find the sine series of the value x

ALGORITHM:

STEP 1: Start the program.
STEP 2: Enter the value of X.
STEP 3: Convert X into radian.
STEP 4: Set a loop.
STEP 5: Find the value of sine using the formula
Temp=temp*pow((double)(-1),(double)(2*i-1))*x*x/(2*i*(2*i-1))
Sum=sum+temp
STEP 6: After the execution of the loop print the sine value.
STEP 7: Stop the program



PROGRAM:

```
//FIND THE SINE SERIES
#include<stdio.h>
#include<conio.h>
#include<math.h>
main()
{
 int no,i;
 float x, a, sum,b;
 clrscr();
 printf("Enter the numbers");
 scanf("%f %d",&x,&no);
 b=x;
 x=x*3.141/180;
 a=x;
 sum=x;
 for(i=1;i<no+1;i++)
 {
  a= (a*pow((double)(-1),(double)(2*i-1))*x*x)/(2*i*(2*i+1));
  sum=sum+a;
  }
  printf("Sine(%f) value is %f",b,sum);
  getch();
  }
```

OUTPUT:

```
Enter the numbers
30
100
sin(30.000000) value is 0.499914
```

RESULT:-

Thus the C program to find sine series is created successfully and verified.

Ex.No:4

Date:

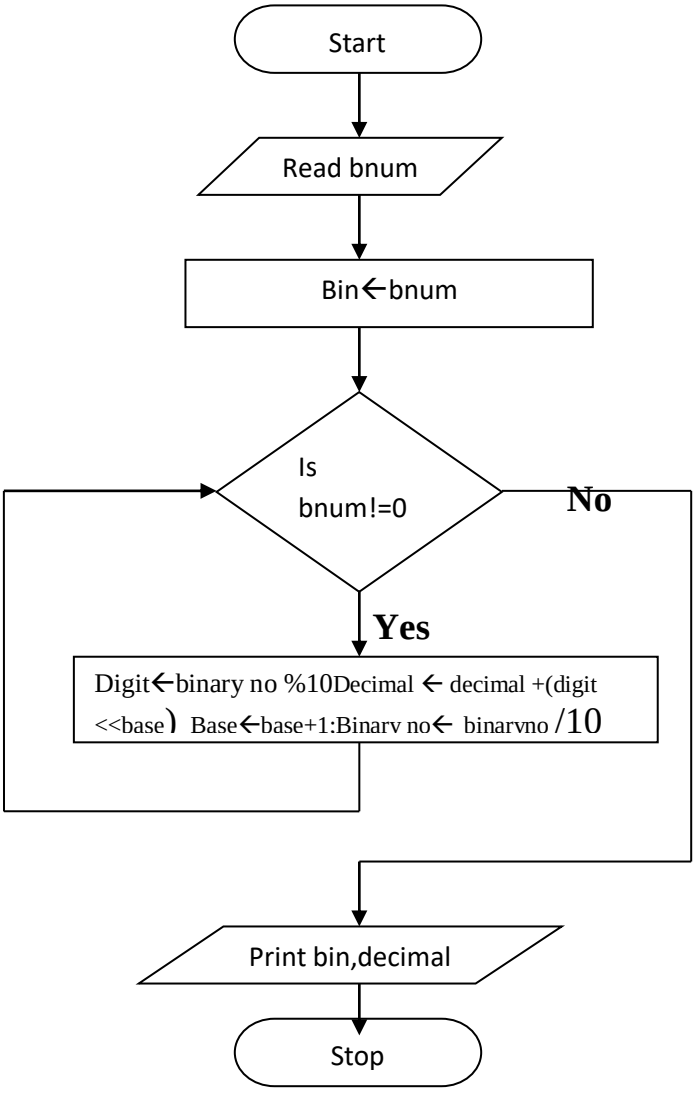
CONVERT BINARY TO DECIMAL

AIM:-

To write a C program to convert the binary number into decimal number

ALGORITHM:

STEP 1: Start the program.
STEP 2: Enter the binary value
STEP 3: Set a loop.
STEP 4: Convert the binary no into decimal by using statement
Digit←binary no %10
Decimal ← decimal +(digit <<base)
Base←base+1;
Binary no← binaryno /10
STEP 5: After the execution of the loop print the decimal value equivalent to the entered binary number
STEP 6: Stop the program.



PROGRAM:

```
//CONVERT BINARY NO TO DECIMAL NO
#include<stdio.h>
#include<conio.h>
void main()
{
int bnum,digit,decimal=0,bin,base=0;
clrscr();
printf("\n Enter the Binary No:");
scanf("%d",&bnum);
bin=bnum;
while(bnum!=0)
{
digit=bnum%10;
decimal=decimal+(digit<<base);
base=base+1;
bnum=bnum/10;
}
printf("\n The Binary %d to Decimal is=%d",bin,decimal);
getch();
}
```

OUTPUT:-

```
Enter the Binary No:100

The Binary 100 to Decimal is=4
```

RESULT:-

Thus the C program to convert the binary number into decimal number has been created successfully and verified.

Ex.No:5

Date:

FACTORIAL NUMBER

AIM:-

To write a program to calculate the factorial of the given number using functions**.**

ALGORITHM:

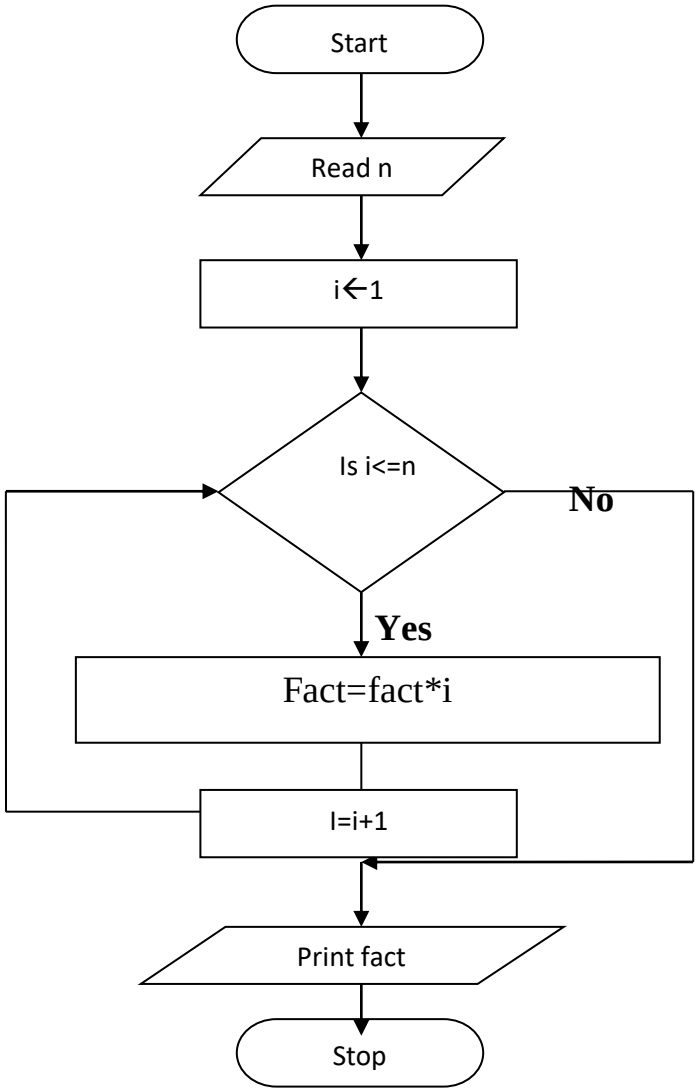
STEP 1: Start the program.

STEP 2: Enter a number.

STEP 3: Set a loop to find the factorial of the given no using Fact=fact*i

STEP 4: Print the factorial of the given number.

STEP 5: Stop the program.



PROGRAM:

// FACTORIAL OF THE GIVEN NUMBER

```
#include<stdio.h>
main()
        {
        int fact=1,i,num;
        printf("Enter the number");
        scanf("%d",&num);
        for(i=1;i<=num;i++)
        {
                fact=fact*i;
        }
        printf("the factorial of %dis %d",num,fact);
        getch();
}
```

OUTPUT:

```
 Enter the Number  5
The factorial of  5 is 120
```

RESULT:-

Thus the C program to calculate factorial of the given number using function is Calculated successfully and verified.

Ex.No:6

Date:

FIBONACCI NUMBER

AIM:-

To write a program to find the Fibonacci series of the given number

ALGORITHM:-

STEP 1: Start the program.

STEP 2: Enter the number.

STEP 3: Check the number whether the number is zero or not.

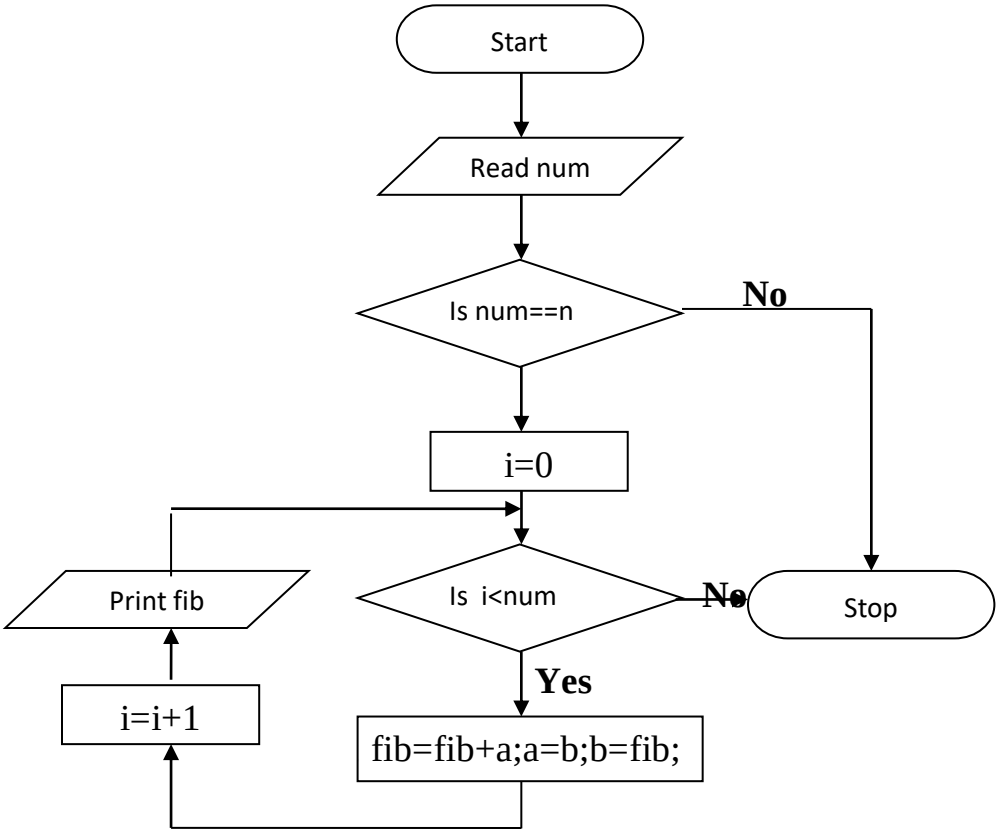
If zero print zero value.If not zero go further.

STEP 4: Set a loop upto the given number.

STEP 5: fib=fib+a; a=b; b=c;

STEP 6: Every increment in the loop prints the value of fib.

STEP 7: After the execution of the loop stops the program.



PROGRAM:-

// FIBBONACI SEROIES

```
#include<stdio.h>
#include<conio.h>
main()
        {
                int num,fib=0,a=0,b=1,i;
                clrscr();
                printf("Enter the number");
                scanf("%d",&num);
                 printf("FIBBONACI SEROIES\n");
                 if(num==0)
                printf("0");
        else
                {
                for(i=0;i<num;i++)
                {
                        fib=fib+a;
                        a=b;b=fib;
                        printf("%d\t",fib);
                getch();
                }
                 }
        }
```

OUTPUT:

Enter the Number 5

Fibonacci series

0 1 1 2 3

RESULT:-

Thus the C program to find Fibonacci series of the given number is verified

Successfully.

Ex.No:7

Date:

SUM OF DIGITS, REVERSE, PALINDROME

AIM:-

To write a C program to find the sum & reverse of digits and Check is Palindrome or not

ALGORITHM:-

STEP 1: Start the program.

STEP 2: Enter the number.

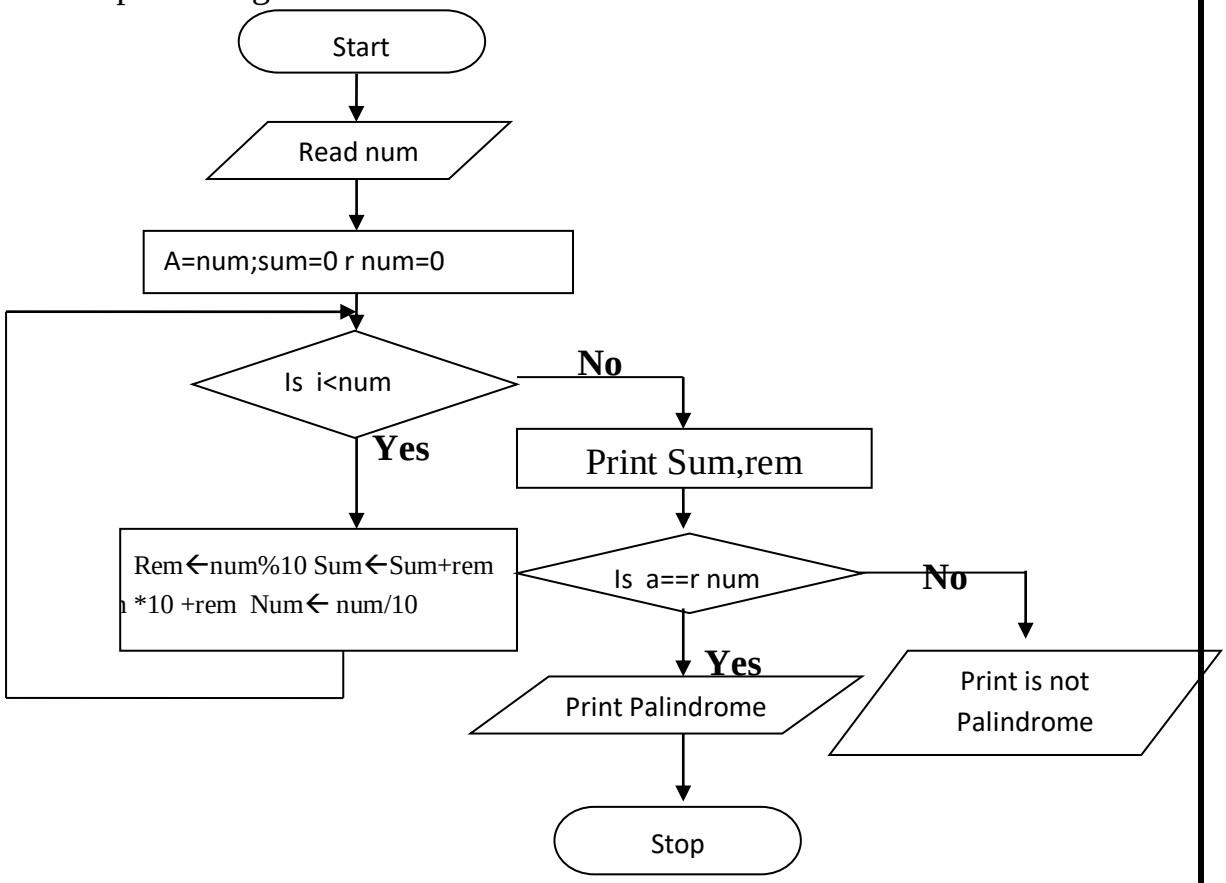
STEP 3: Set a loop upto the number is not equal to zero .

Rem←num%10 Sum←Sum+rem Rnum← rnum *10 +rem Num← num/10

STEP 4: After the end of the loop print the sum and reverse no of the digit.

STEP 5: Find whethwe the reverse no is equal then is palindrome or not

STEP 6: Stop the Program.



PROGRAM:

```
//SUM OF DIGITS, REVERSE, PALINDROME
#include<stdio.h>
#include<conio.h>
void main()
{
unsigned long int a,num,sum=0,rnum=0,rem;
clrscr();
printf("\n Enter the No:");
scanf("%ld",&num);
a=num;
while(num!=0)
{
rem=num%10;
sum=sum+rem;
rnum=rnum*10+rem;
num=num/10;
}
printf("\n The Sum of Digits %ldis=%ld\n",a,sum);
printf("\n The Reverse %ld is=%ld\n",a,rnum);
if(a==rnum)
printf("\n The Given number is a Palindrome");
else
printf("\n The Given number is not a Palindrome");
getch();
}
```

OUTPUT:-

```
Enter the No:12345
The Sum of Digits 12345is=15
The Reverse 12345 is=54321
The Given number is not a Palindrome
```

RESULT:-

Thus the C program to find the sum & reverse of digits and Check is Palindrome or not

Is verified successfully.

Ex.No:8

Date:

PASCAL'S TRIANGLE

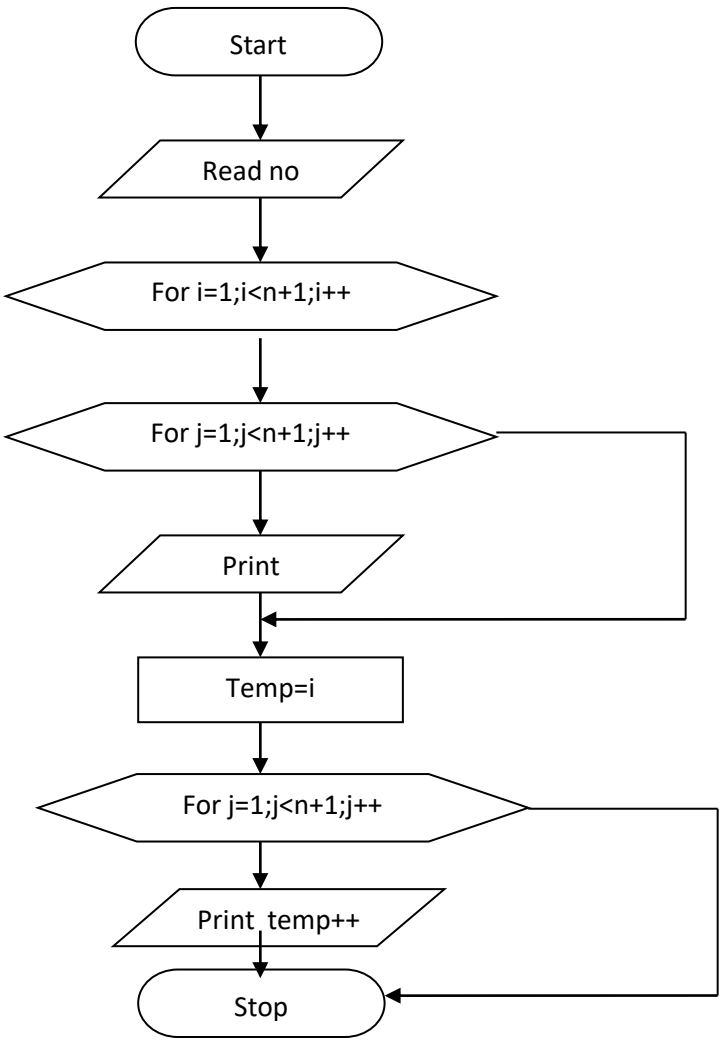
AIM:-

To write a C program to print Pascal's triangle

ALGORITHM:

STEP 1: Start the program.
STEP 2: Read input n.
STEP 3: Create the first loop to print n lines.
STEP 4: Check l<= n
STEP 5: Create the second loop to generate 40 spaces initially, then reduce by 40-3*l equation.

STEP 6: Check i>0
STEP 7: Create the third loop to generate and print digits.
STEP 8: Use m=m*(l-j+1)/j to print digits in each line .
STEP 9: Stop the execution.



PROGRAM:

```
#include<stdio.h>
#include<conio.h>
main()
{
 int i,j,l,m,n;
 clrscr();
 printf("How many rows?\n");
 scanf("%d",&n);
 printf("\n\t\t\t\t    Pascal's Triangle\n");
 m=1;
 for(l=0;l<n;l++)
 {
  for(i=40-3*l;i>0;i--)
   printf(" ");
   for(j=0;j<=l;j++)
     {
       if((j==0)||(l==0))
       m=1;
       else
       m=(m*(l-j+1))/j;
       printf("%6d",m);
       }
  printf("\n");
   }
 getch();
}
```

OUTPUT:-

How many rows?
5 Pascal's Triangle

```
                1
              1   1
            1   2   1
          1   3   3   1
        1   4   6   4   1
```

RESULT:

Thus the C program has been written to print the Pascal's triangle.

Ex.No:9

Date:

MATRIX MULTIPLICATION

AIM:-

To write a C program to perform Matrix Multiplication.

ALGORITHM:-

STEP 1: Start the program.
STEP 2: Enter the row and column of the A matrix.
STEP 3: Enter the row and column of the B matrix.
STEP 4: Enter the elements of the A matrix.
STEP 5: Enter the elements of the B matrix.
STEP 6: Print the elements of the A matrix in matrix form.
STEP 7: Print the elements of the B matrix in matrix form.
STEP 8: Set a loop up to row.
STEP 9: Set a inner loop up to column.
STEP 10: Set another inner loop up to column.
STEP 11: Multiply the A and B matrix and store the element in the C matrix.
STEP 12: Print the resultant matrix.
STEP 13: Stop the program.

PROGRAM:-

```
#include<stdio.h>
#include<conio.h>
void main()
{
        int a[25][25],b[25][25],c[25][25],i,j,k,r,s;
        int m,n;
        clrscr();
        printf(" Enter the row and columns of A matrix.....");
        scanf("%d%d",&m,&n);
        printf("Enter the row and columns of B matrix,,,,,,,,,");
        scanf("%d%d",&r,&s);
        if(m!=r)
        printf("\n The matrix cannot multipled");
        else
        {
                printf("\n Enter the elements of A matrix");
                for(i=0;i<m;i++)
                {
                 for(j=0;j<n;j++)
                 scanf("\t%d",&a[i][j]);
                 }
                 printf("\n Enter the elements of B matrix");
                  for(i=0;i<m;i++)
                  {
                   for(j=0;j<n;j++)
                   scanf("\t%d",&b[i][j]);
                   }
                   printf("\n the elements of A matrix");
                   for(i=0;i<m;i++)
                         {
                         printf("\n");
                           for(j=0;j<n;j++)
                      printf("\t%d",a[i][j]);
                     }
                   printf("\n the elements of B matrix");
```

```
            for(i=0;i<m;i++)
              {
               printf("\n");
               for(j=0;j<n;j++)
               printf("\t%d",b[i][j]);
               }
              for(i=0;i<m;i++)
              {
              printf("\n");
              for(j=0;j<n;j++)
              {
                  c[i][j]=0;
                  for(k=0;k<m;k++)
                  c[i][j]=c[i][j]+a[i][k]*b[k][j];
              }  }       }
        printf("The multiplication of two matrixes");
        for(i=0;i<m;i++)
        {
                  printf("\n");
                  for(j=0;j<n;j++)
                  printf("\t%d",c[i][j]);
                  } getch();
}
```

OUTPUT:-

```
Enter the row and columns of A matrix.....3 3
Enter the row and columns of B matrix,,,,,,,,,3 3
 Enter the elements of A matrix1 2 3 4 5 6 7 8 9
 Enter the elements of B matrix1 2 3 4 5 6 7 8 9
 the elements of A matrix
      1      2      3
      4      5      6
      7      8      9
 the elements of B matrix
      1      2      3
      4      5      6
      7      8      9

The multiplication of two matrixes
      30     36     42
      66     81     96
      102    126    150
```

RESULT:-

Thus the C program to perform Matrix Multiplication is created successfully.

Ex.No:10

Date:

PROGRAM FOR SALES REPORT

AIM:

To write a C program to prepare and print the Sales Report

ALGORITHM:

STEP 1: Start the program.

STEP 2: Declare variables.

STEP 3: Initialize Totalcost =0.0.

STEP 4: Display the available stock.

STEP 5: Read input buy, weight and choice.

STEP 6: If choice is ‘y’ then go to step 4 else print the stock name, price and total cost.

STEP 7: Stop the execution.

PROGRAM:

```
#include<stdio.h>
void main()
{
  char choice;
  int i=0,j,buy[7],weight[7];
char*stock[]={"RawRice","ToorDall","Sugar","Rava","Maida","Washsoap","Bathsoap
"};
  float cost[]={12.75,30.25,15.50,15.00,11.20,5.50,15.50};
  float Totalcost=0.0;
  printf("\n\t.....\n");
  printf("\tstock available\n");
  printf("\n\t.....\n");
  printf("\t 1.Raw Rice Rs.12.75\n");
  printf("\t 2.Toor Dall Rs.30.25\n");
  printf("\t 3.Sugar Rs.15.50\n");
  printf("\t 4.Rava Rs.15.00\n");
  printf("\t 5.Maida Rs.11.20\n");
  printf("\t 6.Wash soap Rs.5.50\n");
  printf("\t 7.Bath soap Rs.15.50\n");
  do   { printf("\nWhich Item Do U Want (Enter the no):");
      scanf("%d",&buy[i]);
     printf("\nEnter the Weight Needed:");
      scanf("%d",&weight[i]);
     i++;
     fflush(stdin);
     printf("Do U Want to Buy Any Other Item(Say Y/N):");
      scanf("%c",&choice);
      fflush(stdin);   }
   while(choice=='Y'||choice=='Y');
   printf("\nThe Sales Report is:");
   printf("\n.....\n");
   printf("S.NO  STOCK NAME  RS.");
   printf("\n.....\n");
   for(j=0;j<i;j++)    {
```

```
      printf("%d. %s\t %.2f \n",j+1,stock[buy[j]-1],
            weight[j]*cost[buy[j]-1]);
      Totalcost=Totalcost+(weight[j]*cost[buy[j]-1]);    }
    printf(".....\n");
    printf("Total cost: %.2f",Totalcost);
}
```

OUTPUT:-

```
                Stock available
        1. Raw Rice Rs.12.75
        2. Toor Dall Rs.30.25
        3. Sugar Rs.15.50
        4. Rava Rs.15.00
        5. Maida Rs.11.20
        6. Wash soap Rs.5.50
        7. Bath soap Rs.15.50
Which Item Do U Want (Enter the no):1
Enter the Weight Needed:2
Do U Want to Buy Any Other Item(Say Y/N):Y
Which Item Do U Want (Enter the no):6
Enter the Weight Needed:3
Do U Want to Buy Any Other Item(Say Y/N):Y
Which Item Do U Want (Enter the no):5
Enter the Weight Needed:4
Do U Want to Buy Any Other Item(Say Y/N):N
The Sales Report is:
.....
S.NO   STOCK NAME  RS.
  1.       Raw Rice       25.50
  2.       Wash soap     16.50
  3.       Toor Dall      121.00
  4.       Maida          44.80
.....
            Total cost: 207.80
```

RESULT:-

Thus the C program to prepare and print sales report is created successfully.

ExNo:11 a

Date:

STRING CONCATENATION

AIM:-

To write a program to perform the string Concatenation using C.

ALGORITHM:-

STEP 1: Start the program

STEP 2: Declare the variables.

STEP 3: Read input str1 and str2.

STEP 4: Concatenate the two strings using for loop..

STEP 5: Store the string into str [k]. Print the String.

STEP 6: Stop the Program.

PROGRAM:

```
#include<stdio.h>
#include<conio.h>
void main()
{
int i,j,k;
char str[10],str1[10],str2[20];
clrscr();
printf("\n Enter the String1:");
gets(str1);
printf("\n Enter the String2:");
gets(str2);
for(i=0,j=0;str1[i]!='\0';i++,j++)
str[j]=str1[i];
for(i=0,k=j;str2[i]!='\0';i++,k++)
str[k]=str2[i];
str[k]='\0';
printf("\n The Concatenated String is %s",str);
getch();
}
```

OUTPUT:

Enter the String1:Computer

Enter the String2:Programming

The Concatenated String is Computer Programming

RESULT:-

Thus the C program to perform String Concatenation is created successfully.

ExNo:11 b

Date:

STRING COMPARISON

AIM:-

To write a program to perform the string Comparison using C.

ALGORITHM:-

STEP 1: Start the program

STEP 2: Declare the variables.

STEP 3: Read input str1 and str2.

STEP 4: Compare the two strings using for loop..

STEP 5: If the strings are equal then print “Strings are equal”.

STEP 6: If the strings are not equal then print “Strings are not equal”.

STEP 7: Stop the Program.

PROGRAM:

```
#include<stdio.h>

#include<conio.h>
void main()
{
int i;
char str1[10],str2[10];
printf("\n Enter the String1:");
gets(str1);
printf("\n Enter the String2:");
gets(str2);
for(i=0;str1[i]!='\0'||str2[i]!='\0';i++)
if(str1[i]!=str2[i])
{
printf("\n Strings are not equal");
break;
}
else
{
printf("\n Strings are equal");
break;
}
getch();
}
```

OUTPUT:

```
Enter the String1:Software
Enter the String2:Hardware
Strings are not equal
Enter the String1:software
Enter the String2:software
Strings are equal
```

RESULT:-

Thus the C program to perform String Comparison is created successfully.

ExNo:12 a

Date:

STRING COPY

AIM:-

To write a program to perform the string Copy using C

ALGORITHM:-

STEP 1: Start the program

STEP 2: Declare the variables.

STEP 3: Read input str1 and str2.

STEP 4: Copy the two strings using for loop..

STEP 5: Store the string into str 2]. Print the String.

STEP 6: Stop the Program.

PROGRAM:

```
#include<stdio.h>
void main()
{
int i;
char str1[10],str2[10];
clrscr();
printf(" Enter string 1");
gets(str1);
for(i=0;str1[i]!='\0';i++)
str2[i] = str1[i];
str2[i] = '\0';
printf("\n The Input string is %s",str1);
printf("\n The Copied string2 is %s ",str2);
getch();
}
```

OUTPUT:

```
Enter string 1 Computer

 The Input string is Computer
 The Copied string2 is Computer
```

RESULT:-

Thus the C program to perform String Copy is created successfully.

ExNo:12 b

Date:

STRING LENGTH

AIM:-

To write a program to perform the string length using C

ALGORITHM:-

STEP 1: Start the program

STEP 2: Declare the variables.

STEP 3: Read input str.

STEP 4: Count the string length using for loop..

STEP 5: Print the String length.

STEP 6: Stop the Program.

PROGRAM:

```
#include<stdio.h>
#include<conio.h>
void main()
{
int i;
char str[20];
clrscr();
printf("\n Enter the String");
gets(str);
for(i=0;str[i]!='\0';i++);
printf("\n The no of Strings in the String is %d",i);
getch();
}
```

OUTPUT:

Enter the StringComputer

The no of Strings in the String is 8

RESULT:-

Thus the C program to perform String Length is created successfully.

Ex.No:13

Date: # ARRANGE NAMES IN ALPHABETICAL ORDER

AIM:-

To write a C program to arrange names in alphabetical order

ALGORITHM:-

STEP 1: Start the program.
STEP 2: Read input n.
STEP 3: Get the names using for loop.
STEP 4: Initialize i to 0, j←i+1.
STEP 5: Compare the names by using strcmp function.
STEP 6: Print the names in alphabetical order.
STEP 7: Stop the execution.

PROGRAM:

```
#include<stdio.h>
#include<conio.h>
#include<string.h>
main()
 {
  char names[50][20],temp[20];
  int n,i,j;
  clrscr();
  printf("\n how many names?");
  scanf("%d", &n);
  printf("\n Enter the %d names one by one and\n ",n);
  for(i=0;i<n;i++)
  scanf("%s",names[i]);
 for(i=0;i<n-1;i++)
   for(j=i+1;j<n;j++)
    if(strcmp(names[i],names[j])>0)
     {
       strcpy(temp,names[i]);
       strcpy(names[i],names[j]);
       strcpy(names[j],temp);
      }
    printf("\n names in alphabetical order");
   for(i=0;i<n;i++)
   printf("\n%s",names[i]);
   getch();
 }
```

OUTPUT:

```
How many names?5

Enter the 5 names one by one and
priya
anu
young
devi
sathiya

names in alphabetical order
anu
devi
priya
sathiya
young
```

RESULT:

Thus the C program has been written to arrange names in alphabetical order.

Ex.No: 14

Date: # CALCULATION OF MEAN, VARIANCE & STANDARD DEVIATION

AIM:

To write a C program to calculate the mean, variance and standard deviation using functions

ALGORITHM:-

STEP 1: Start the program.

STEP 2: Enter the array size.

STEP 3: Enter the elements of the array.

STEP 4: Print the Entered elements.

STEP 5: Call the function to calculate mean.

STEP 6: Call the function to calculate variance.

STEP 6: Call the function to calculate standard deviation.

STEP 7: Call the average function from the standard deviation function.

STEP 8: Stop the program.

PROGRAM:

```
//Compute Standard Deviation Using Function
#include<stdio.h>
#include<math.h>
#include<conio.h>
main()
{int i, num;
    float dev, list[100];
    float standev();
    clrscr();
    printf("\n Enter the size of the list");
    scanf("%d",&num);
    printf("\n Enter the elements  of the list");
    for(i=0;i<num;i++)
    scanf("%f",&list[i]);
    printf("\nEntered elements are");
    for(i=0;i<num;i++)
    printf("\n%f",list[i]);
    dev= standev(list,num);
    printf("\n Standard Deviation of the list is %10.5f\n",dev);
    getch();       }
    float standev(float list[100],int no)
     {
       int i;
       float mean,dev,sum=0.0;
       float avg();
       mean=avg(list,no);
       printf("\n Mean of %3d elements is %10.2f\n",no,mean);
       for(i=0;i<no;i++)
        sum=sum+(mean-list[i])*(mean-list[i]);
        dev=sqrt(sum/(float)no);
        return(dev);          }
        float avg(float l[100],int n)
         {
             int i;
             float sum=0.0;
```

```
        for(i=0;i<n;i++)
        sum=sum+l[i];
        return(sum/(float)n);


    }
```

OUTPUT:

```
Enter the size of the list 5
Enter the elements of the list 1  2  3  4  5
Entered elements are
1.000000
2.000000
3.000000
4.000000
5.000000
Mean of 5 elements is 3.00
Standard deviation of the list is 1.41421
```

RESULT:-

Thus the C program to calculate the mean, variance and standard deviation is performed Successfully.

Ex.No:15

Date: # MARKSHEET OF STUDENTS USING STRUCTURES

AIM:-

To write a C program to print the mark sheet of n students using structures.

ALGORITHM:-

STEP 1: Start the program.

STEP 2: Struct std

Rno,marks:integer

Name[10]:character

End Struct

STEP 3: Read total number of students n.

STEP 4: Read s[i].rno.s[i].name,s[i].marks

STEP 5: Print s[i].rno,s[i].name,s[i].marks

STEP 6: Stop the program.

PROGRAM:

```
#include<stdio.h>
#include<conio.h>
typedef struct std
{
int rno;
char name[10];
int marks;
}student;
student s[10];
void main()
{
 int i,n;
 clrscr();
 printf("Enter Upper limit:");
scanf("%d",&n);
printf("Enter student details:\n");
printf("Enter the RollNo,Name and Mark:\n");
for(i=1;i<=n;i++)
scanf("%d%s%d",&s[i].rno,s[i].name,&s[i].marks);
printf("\n");
printf("student details are \n\n");
printf("Rollno \t Name\t\tMarks\n");
for(i=1;i<=n;i++)
printf("%d\t\t%s\t\t%d\n",s[i].rno,s[i].name,s[i].marks);
getch();
}
```

OUTPUT FOR STUDENTS MARKSHEET:-

```
Enter Upper limit:4
Enter student details:
Enter the RollNo,Name and Mark:
1 RR 80
2 SS 90
3 GG 88
4 FF 77

Student details are

Roll no   Name        Marks
1           RR         80
2           SS         90
3           GG         88
4           FF         77
```

RESULT:-

Thus the program to print the mark sheet of n students using structures is created successfully.

Ex.No:16

Date:

PROGRAM FOR POINTERS

AIM:

To write a C program using pointers to access the elements of array and count the number of occurrences of the given number using the array.

ALGORITHM:

STEP 1: Start the program.

STEP 2: Declare the variables and an array.

STEP 3: Read input n.

STEP 4: Initialize I to 0.

STEP 5: Check i is less than n else go to step 11

STEP 6: Get the elements and store it in an array.

STEP 7: Get the number to be counted.

STEP 8: Initialize the pointer variable to the first element of an array.

STEP 9: If count is equal to 0 then print number not present.

STEP 10: Else print the result.

STEP 11: Stop the execution.

PROGRAM:

```
/*COUNTPTR.C*/
#include<stdio.h>
void main()
getch();
{
  int i,n,check,count=0,*ptr,arr[20];
  printf("\nEnter the Limit:");
   scanf("%d", &n);
  printf("\nEnter the Elements:");
  for(i=0;i<n;i++);
   scanf("%d", &arr[i]);
  printf("\nEnter the Number to be counted:");
   scanf("%d", &check);
  ptr=&arr[0];
  for(i=0;i<n;i++)
   {
     if(check==*(ptr+i))
      count++;
   }
   if(count==0)
    printf("\nNumber is not present in the array");
   else
    printf("\nNumber appears %d times in the array",count);
}
```

OUTPUT:-

Enter the Limit:4
Enter the Elements:11 11 2 11
Enter the Number to be counted:11
Number appears 3 times in the array

RESULT:-

Thus the C program to count the number of occurrences of the given number using pointer is created successfully.