

LAB MANUAL OF COMPUTER APPLICATION



Objective(s): -To know the basic computer operations.

Required device-Computer.

Steps to start computer:

Step 1:- plug in monitor and CPU wire to socket.

Step 2:- switch on the socket in which you plugged the CPU and monitor wire.

Step 3:- press the ON button on CPU.

Step 4:- now your computer is opening.

Step 5:- now when the desktop is seen on monitor your computer is open.

Steps to restart computer:

Step1:-Open the start menu. Step2:-Select the power icon at the bottom or top of the screen.

Step3:-Then select restart.

Booting:

When we start our Computer then there is an operation which is performed automatically by the Computer which is called as Booting. In the Booting, System will check all the hardware's and Software's those are installed or Attached with the System and this will also load all the Files those are needed for running a system.

Objective(s): To know the Operating system.

Required device-Computer

Operating system- An operating system is a software that allows a user to run other applications on a computing device.

Basic DOS commands-

(i) **MD (Make Directory):** We use this commands to make a new directory or sub directory.

Syntax: C\ :>MD DIRECTORY NAME

Example: MD STUDENT

(ii) **CD (Change Directory):** This commands is used to move from one directory to another.

Syntax: C : > CD Directory name

Example: > CD Student

Exit to Directory:

CD... The command move the subdirectory to parent directory.

CD\ The command is used to move directly to the root directory.

(iii) **RD (Remove Directory):** If a Directory which was earlier is; not required than such directory can be removed by using

Syntax: C :\> RD Directory name

Example: >RD student

Note: (a) The directory, which is to be removed, must be empty.

(b) The directory in which one is working cannot be removed.

One has to close the directory and come to the parent directory to remove that directory.

(iv) Copy Con: Its command is used to create a file. The name of the file, which is to be created, is written after the copy Con leaving one space in between

Syntax: Copy Con file name

To create a file, the following steps are:

(i) Type Copy Con Monu and press Enter.

(ii) Type whatever is to be typed in the file.

(iii) Press F6 function key or CTRL + Z keys '? Z' will be displayed on the screen, which indicates that the file is complete.

(iv) Press Enter and after that the DOS will save the file and will display the message '1 File(s) copied.

(v) Del: This command is used to erase the files which are no longer required.

Syntax: C:\> Del < File name >

Example: >Del Somu

(vi) **Type:** This command is used to view the contents of text file.

Syntax: Type <file name>

(vii) **Copy:** This command is used to copy of file from one place to another place. A copy of file is another file with the same contents.

Syntax: C:1> copy <source> < destination path>

(viii) **Ren:** This command is used to rename the file. In REN command two parameters are used. The first is the file we want to rename and the second is the new name for the file.

Syntax: > Ren <old file name> <New file name>

(ix) **DIR:** This command is used to display of directory and files.

Syntax: C :\> DIR?

(x) CLS: This command is used to clear the screen.

Syntax: C :\> CLS

Basic Windows operations:

Icons- These are the small pictures that represents an objects may be inside the desktop or in folders.

Start button-It opens the starts section. It is in taskbar.

Taskbar-It is the long horizontal bar at the bottom of the desktop.

Mouse Operations:

There are four basic mouse operations that you can perform:

<Click>

To select an item or choose a menu command, point the mouse at it with the pointer and<Click>theleftmousebutton.

<Click and Drag>

To move an item is called dragging. To complete this operation, point at the item, <Click> it and hold down the left mouse button. While holding down the left mouse button drag the item where you want it to be. Release the button. Note: Practice this a bit before doing it, since you can inadvertently drag an item anywhere.

<Double-Click>

This is a shortcut method used to access an item or to open or close a window quickly without using a menu. To complete this operation, point the mouse pointer to the item and<Double-Click>it with the left mouse button.

<Right-Click>

When you click the right mouse button you can access a drop down menu to choose what you can do with the item, such as "copy, "paste", etc. Every menu is specific to what you click. To perform this operation, point at the desired item or object and <Click>the right mouse button only once.

File- It is an object on a computer that stores **data**, **information**, settings, or commands used with a computer **program**.

Folder- In computers, a folder is the virtual location for applications, documents, data or other sub-folders. Folders help in storing and organizing files and data in the computer.

Copy-Ctrl+C.

Cut- Ctrl+X.

Past- Ctrl+V.

Utilities: These are software programs that add functionality to your computer or help your computer perform better. These include antivirus, backup, disk repair, file management, security, and networking programs. Utilities can also be applications such as screensavers, font and icon tools, and desktop enhancements.

Word- Sometimes called WinWord, MS Word, or Word, Microsoft Word is a word processor published by Microsoft.

Notepad- It is a text editor included with all versions of Microsoft Windows that allows you to create, open, and read plaintext files.

Paint- It is a software graphics program that allows the user to draw or paint bitmapped images on a computer.

Objective(s): To know the basic usage of MS-office.

Required device-Computer.

Software required-MS-OFFICE Package (Word, Excel, PowerPoint)

MS-Word;

a) Follow these step-by-step instructions to start a document in Microsoft Word

Step 1: From the desktop or from your 'Start' menu, open Microsoft Word. If the Word 2013 icon does not appear you can search for it, using the 'Search programs and files' box in the picture above. Step 2: Microsoft Word will open up and present you with an option to select a document template, or a blank document.

Step 3: If you don't want to use any of the templates on display, click on the blank document.

Step 4: A new blank document will open up ready for you to start typing.

b) Follow these step-by-step instructions to move around a document Step 1: From the desktop or from your 'Start' menu, open Microsoft Word. Step 2: Click either File or the Office button at the top left. Select Open and browse to the document you wish to open. Double-click on it with your left-hand mouse button to open it.

Step 3: The flashing cursor (mouse pointer) in the document tells you where you're typing. Wherever the flashing cursor is placed, the letters that you type will be inserted at that point. When you start a blank document, the flashing cursor will be at the start of your document ready for you to start typing. Step 4: As you type, the cursor will also move with each letter. This guides you so that you know where the focus is for typing.

Step 5: The mouse can be used for moving around a document. When the mouse pointer is moved over a text area, the pointer will change from an arrow to a 'text select' or 'I-beam' icon.

c) Step 6: Move the text select/mouse pointer with your mouse to where you would like to change or add text. Click the left-hand mouse button. This will

then place the flashing cursor at the point where you have clicked so that you can edit or insert text.

Step 7: You can also move around your document using the arrow keys on the keyboard.

Step 8: Pressing these arrow keys will move the flashing cursor up a line of text, down a line or left one character or right one character. Using a combination of keystrokes can also move the cursor further – e.g. holding down the Ctrl (control) key and pressing the left arrow key will move the cursor left one word. Holding down Ctrl and pressing the up arrow key will move the cursor to the start of each paragraph.

d) Follow these step-by-step instructions to save a document.

Step 1: Start a new document in Word and type your text

Step 2: Click File in the top left-hand corner of the screen. Step 3: From the menu, choose Save.

Step 4: A 'Save' dialogue box will come up. At the top and at the left-hand side in the list of folder options, it will show the folder where you'll be saving the document. If you wish to change this folder, navigate through the folders on the left-hand side of the dialogue box to choose the one where you want to save your document.

Step 5: Word will automatically give your document a name, based on the first few words of your text. If you don't like the one given, once you have chosen the destination folder, type a name for your document in the 'File name' box. Come up with a name that is concise but will allow you to find the document easily again. Don't worry about changing what's in the box underneath, labelled 'Save as type'. This seldom needs to be changed. It allows you to choose the type of format that all documents created with these settings will have.

Step 6: Once you have typed in the name of your document, click Save.

Step 7: Your document will now have a name, which will be shown at the very top of your document screen. If you make changes to your document and then save them after it has been saved originally, the dialogue box will not come up again. It will just save your changes without any visual notification being shown. Step 8: The 'Save As' menu – the link to which is on the left-hand side of the 'File' dialogue box, beneath 'Save' – is used to save an existing document under another name. This is helpful if you've made changes to your document and then

want to save the changes, but also keep the original document in its original format and under its original name.

e) Follow these step-by-step instructions to print a document from Microsoft Word You'll need: A printer set up and connected to your computer.

Step 1: Open an existing Word document or start a new document and type your text.

Step 2: Once you've completed your document and are ready to print, click File in the top left-hand corner of your document.

Step 3: Move down and click Print in the menu. This will bring up the 'Print' dialogue box.

Step 4: Choose how many copies of your document you need.

Step 5: Depending on your printer options, you can choose other printing features such as whether you want to print all pages or only certain pages. You can also change the orientation of the print from portrait to landscape and tell your computer and printer whether you're printing on a certain size of paper. You'll also see, on the right, a preview of your printed document will look like. Step 6: When you're happy with your settings, click Print. The document will now start printing on your printer.

MS-Excel;

a) Follow these step-by-step instructions for entering data in Excel.

Step 1: From the desktop or from your 'Start' menu, open Microsoft Excel.

Step 2: Click on the cell where you want to insert data.

Step 3: Type the data in to the cell.

Step 4: Press the ENTER key on the keyboard or use the mouse to click on another cell.

b) Follow these instructions to format a document in Excel From the desktop or from your 'Start' menu, open Microsoft Excel. Formatting Data There are many different options in Microsoft Excel to format numbers, text, and the cells themselves. These instructions will cover some of the more basic and widelyused formatting options available: Changing the Font commands will allow you to change the style, size, or color of the text you wish to alter: Style

1.) Select the cells you wish to modify. -In this case, please select all data.

2.) To change the font style of the cells as well as the row and column headers, click on the PAGE LAYOUT tab at the top of the page

3.) Click the drop-down arrow next to the FONT command in the upper left corner of the screen

4.) Scroll over the various fonts and choose "Office Classic 2-Arial-Arial" *Note: to change the font of ONLY the cells and not the row and column headers,

complete the same directions just given, only under the HOME tab at the top of the page.

Size

1.) Select the cells you wish to modify -In this case, please select cells A1-F1 (Column Headers).

2.) Under the HOME tab at the top of the page, locate the drop-down arrow next to the font size command

3.) Click on the drop-down arrow

4.) Scroll over the various font sizes and choose size 12.

Color

1.) Select the cells you wish to modify -In this case, select cells A1-F1 again.

2.) Under the HOME tab at the top of the page, locate the drop-down arrow next to the font color command.

3.) Click on the drop-down arrow

4.) Scroll over the various font colors and click on the desired color

c) Follow these instructions to align text in Excel From the desktop or from your 'Start' menu, open Microsoft Excel.

Horizontal

1.) Select the cells you wish to modify -In this case, please select all cells.

2.) Under the HOME tab, you can one of the three horizontal alignment commands • ALIGN TEXT LEFT: aligns text to the left of the cell • CENTER: aligns

text to the center of the cell • ALIGN TEXT RIGHT: aligns text to the right of the cell.

Vertical

1.) Select the cells you wish to modify -In this case, please select all cells.

2.) Under the HOME tab, select one of the three vertical alignment commands •
TOP ALIGN: Aligns text to the top of the cell • MIDDLE ALIGN: Aligns text to the middle of the cell • BOTTOM ALIGN: Aligns text to the bottom of the cell -In our example, we used Middle alignment for both Horizontal and Vertical.
d)Follow these instructions to enter a table in Excel Open an existing Excel

document or start a new document Returning to our previous example from the

instructions regarding data entry, follow these steps to further format the data and text you entered:

1.) Use your mouse to highlight all the cells containing text or number data

2.) Click on the INSERT tab at the top of the page and select TABLE

3.) Make sure you click on the box (you will see a checkmark appear) stating that the table has headers

4.) Click on the OK button to finalize the formatting *Note: Feel free to also format other aspects of your spreadsheet discussed above such as the style, size, and color of the font to fit your own preferences

e) Print is same as MS-Word.

MS-PowerPoint;

a) To create a new blank presentation.

1. Start PowerPoint.

2. When the Start screen appears, press the Esc key.

To preview presentation design templates

1. Display the Backstage view, and then, in the left pane, click New.

2. On the New page, scroll the pane to view the presentation design templates that were installed with PowerPoint.

3. Click any thumbnail to open a preview window that displays the title slide of the selected design with alternative color schemes and graphic backgrounds.4. Do any of the following:

- Click the More Images arrows to display other slide layouts for the template.
- Click any of the thumbnails in the right half of the preview window to apply that color scheme to the slide layouts of the selected template.

• Click the arrows to the left and right of the preview window to preview other design templates.

• Click the Create button to create a presentation based on the template that is active in the preview window.

• In the upper-right corner of the preview window, click the Close button to close the preview window without creating a presentation. To display only presentation templates that are optimized at the 4:3 slide size 1. On the New page of the backstage view, below the Search box, click 4:3.

b) To create a presentation based on a default design template.

- 1. Display the New page of the backstage view.
- 2. Scroll the pane to locate the design you want to use.

- 3. Do either of the following:
- Double-click the thumbnail to create the presentation.

• Click the thumbnail to preview the design template, and then click the Create button in the preview window to create the presentation. PowerPoint displays the new presentation in Normal view. The title slide is visible in the Thumbnails pane and in the Slide pane.

c) To disable the display of the Start screen.

1. In the Backstage view, click Options to open the PowerPoint Options dialog box.

2. On the General page of the dialog box, clear the Show the Start screen when this application starts check box.

3. Close the PowerPoint Options dialog box.

d) To move among slides while working in a presentation 1. Use any of the following techniques:

- In the Thumbnails pane, click the slide you want to display.
- In the Slide pane, drag the scroll bar up or down.
- Press the Home key to move to the first slide.
- Press the End key to move to the last slide.

To save the document you have to press Ctrl+S.

To print the document you can press Ctrl+P.

Objective(s): To know about the use of internet and its use.

Required device-Computer

Browser-It is a special software that enables the users to read/view webpage and jump from one webpage to another.

Webpage-It is a written in a language called HTML, which enables to embed hypertext links in the document.

Website-It is asset of related webpages, published by on individual or an organisation

URL-Each webpage has a unique address called a URL that identifies its location on the internet.

Http-It is asset of rules that helps to transfer hypertext between two or more computers.

Net browsing-Simply searching some information in internet.

Creating e-mail: Steps

1. Start up your computer and Internet browser. Type www.gmail.com in the address bar.

Step

2. Click on the "Create an Account" button, which is located below the text "New to Gmail? It's free and easy." Note that this pane differs from the existing user login pane at the top.

3. Create your email ID by entering your personal information in the "Create an Account" page. Enter your first and last name and then your desired email ID. Click on the "check availability" button below your name if you would like to see if your user ID is available before you proceed. Continue to enter a new name if your choice is not available, until it is accepted. Choose a password, and then reenter it for accuracy. Select a security question to be used to verify your identity from the "Choose a Question" pull-down menu button. Type in an answer to the security question. Enter an optional recovery email address (alternative email address) if you have one. Enter your location and your birthday. Type in the

letters you see listed in the "Word Verification." Agree to Google's terms of service by clicking on the "I accept. Create my account" button at the bottom. 4. Complete the sign-up process by logging into your new account at www.gmail.com. Enter the user name you selected and the password. Click on the link that will be included in an email to your new email address, and your email will be activated.

Sending & receiving email chatting;

Step 1: Log in to your email account so that you are on the dashboard (front page) of your mail account.

Step 2: Click Compose. Alternatively, you can reply to an email that you've received by double-clicking on it in your list of received emails, then following the same steps.

Step 3: Once your new email is open, type your recipient's email address in the 'To' field. Then put a title for your email in the 'Subject' box and type your message.

Step 4: Click on the paper clip icon at the bottom of the compose window.

Step 5: Browse through your Windows folders until you reach the document you want to attach to your email. Highlight this by clicking on it and then click Open. This will add the document as an attachment to your email.

Step 6: You can tell that your document has been attached to you email by its file name appearing in blue text at the bottom of the compose window.

Step 7: If you want to attach another document, click the paperclip icon again and repeat steps 4 and 5.

Step 8: When you're ready to send your email, click Send.

```
[Type here]
```

Objective(s): To write a programming in C.

Software required-Turbo C++ compiler/any compiler that is required for C programming.

```
I. Program: WAP in C to compute (a+b)<sup>3</sup>.
#include<stdio.h>
#include<conio.h>
Void main()
{
    int a,b,c;
    clrscr();
    printf("\n enter the value of a and b :");
    scanf("%d%d",&a,&b);
    c=a*a*a+b*b*b+*a*b*(a+b);
    printf("\n The final result is %d",c);
    getch();
}
```

II. **Program:** WAP in C to convert time in seconds to time in hours, minutes and seconds.

```
#include<stdio.h>
#include<conio.h>
void main()
{
longint s,h,m,t;
clrscr();
printf("enter time in seconds");
scanf("%ld",&s);
h=s/3600;
t=s%3600;
m=t/60;
```

```
s=%60;
printf("\n Time is %ld", h,m,s);
getch();
}
```

III. **Program:** WAP in C to compute SI & CI of given principle, rate of interest and time period.

#include<stdio.h>
#include<conio.h>
#include<math.h>

```
int main()
```

{

```
int p,t;
```

```
float r,si,amount,ci;
clrscr();
printf("Please enter principle, time and rate of interest");
scanf("%d%d%f", p,&t,&r);
si=p*t*r/100;
printf("\nSimple interest = %.3f",si);
amount=p*pow((1 +r/100),t);
ci=amount-p;
printf("\nCompound interest = %.3f",ci);
getch();
}
```

IV. **Program:** WAP in C to check whether a given no. is palindrome or not.

```
#include<stdio.h>
#include<conio.h>
void main()
{
```

```
[Type here]
```

```
int n,a,b=0,num;
clrscr();
printf("Enter any number:");
scanf("%d",&n);
num=n;
while(n!=0)
{
a=n%10;
b=a+(b*10);
n=n/10;
}
if(num==b)
printf("\nThe given number is palindrome");
else
printf("\nThe given number is not palindrome");
getch();
}
```

V. **Program:** WAP in C to find the sum of the following series.

```
1+1/x+1/x^{2}+....+1/x^{n}
#include<stdio.h>
#include<conio.h>
#include<math.h>
void main()
{
int i,n;
float x,sum=0;
clrscr();
printf("1+x+x^2+.....+x^n");
printf("nEnter the value of x and n:");
scanf("%f%d",&x,&n);
for(i=1;i<=n;++i)
sum+=pow(x,i);
sum++;
printf("nSum=%f",sum);
```

```
[Type here]
```

getch();
}

VI. Program: WAP in C to determine whether a no. is prime or not?
#include<stdio.h>
#include<conio.h>

```
void main()
{
int n,i, flag=1;
clrscr();
printf("Enter any number:");
scanf("%d",&n);
for(i=2;i<n/2;++i)
if(n\%i==0)
{
flag=0;
break;
}
if(flag==1)
printf("\nThe given number is prime");
else
printf("\nThe given number is not prime");
getch();
}
```

VII. **Program:**WAP in C to find the greatest no. among three integers.

```
#include<stdio.h>
#include<conio.h>
void main()
{
    int x,y,z,max;
    clrscr();
    printf("Enter The Three Numbers:");
    scanf("%d%d%d",&x,&y,&z);
    max=x;
    if(y>max&y>z)
```

```
[Type here]
max=y;
else
if(z>max)
max=z;
printf("nThe Greatest Number among %d %d %d is %d",x,y,z,max);
getch();
}
```

VIII. **Program:** WAP in C to find the factorial of a no. by using recursion. #include<stdio.h>

```
#include<conio.h>
void main()
ł
int fac,n;
int factorial(int);
clrscr();
printf("Enter any number:");
scanf("%d",&n);
fac=factorial(n);
printf("Factorial=%d",fac);
getch();
int factorial(int x)
{
int f;
if(x==1 | | x==0)
return (1);
else
f=x*factorial(x-1);
return (f);
}
```

IX. Program: WAP in C to find the sum of fibonacci series, by using function. #include<stdio.h> #include<conio.h> int fibonacci(int n)

```
[Type here]
```

```
{
if((n==1)||(n==0))
{
return(n);
}
else
{
return(fibonacci(n-1)+fibonacci(n-2));
}
}
int main()
{
int n,i=0;
printf("Input the number of terms for Fibonacci Series:");
scanf("%d",&n);
printf("\nFibonnaci Series is as follows\n");
while(i<n)
ł
printf("%d ",fibonacci(i));
i++;
}
return 0;
}
```

X. **Program:** WAP in C to find the vowels in a given string.

```
#include<stdio.h>
#include<conio.h>
void main()
{
    char str[50],v[]="aeiouAEIOU";
    int i,j,count=0;
    printf("enter a string");
    gets(str);
    for(i=0;str[i];i++)
    {
```

```
[Type here]
for(j=0;v[j];j++)
{
lf(str[i]==v[j])
{
count++;
Break;
}
}
}
printf("Total vowels in %s is %d",str,count);
getch();
}
     Program: WAP in C to find the nos. of time an element occurs in an
XI.
     array.
#include <stdio.h>
#include<conio.h>
int main()
{
int arr[MAX],n,i;
int num, count;
clrscr();
printf("Enter total number of elements: ");
scanf("%d",&n);
printf("Enter array elements:\n");
for(i=0;i< n;i++)
{
printf("Enter element %d: ",i+1);
scanf("%d",&arr[i]);
```

```
}
printf("Enter number to find Occurrence: ");
scanf("%d",&num);
count=0;
```

for(i=0;i< n;i++)

if(arr[i]==num)

{

```
20
```

```
[Type here]
count++;
}
printf("Occurrence of %d is: %d\n",num,count);
return 0;
}
```

XII. **Program:** WAP in C to accept a number from keyboard and print it in reverse order of entry by using function.

```
#include <stdio.h>
#include<conio.h>
Int reverse(int n)
{
Int s=0,r;
While(n!=0)
{
r=n%10;
s=s*10+r;
n=n/10;
}
Return s;
}
void main()
{
int n,r;
clrscr();
printf("\n enter a number");
scan("%d",&n);
r=reverse(n);
printf("\n reverse digits=%d",r);
getch();
}
```

XIII. **Program:** WAP in C to compute the sine series. Sin(x) =x- $x^3/3! + X^5/5! - x^7/7! + \dots + x^n/n!$

```
[Type here]
```

```
#include<stdio.h>
#include<conio.h>
#include<math.h>
#define ACC 0.000001
#define PI 3.14
void main()
{
int x,i;
float x1,x2,sine=0,term;
clrscr();
 printf("Enter the X value : ");
scanf("%d",&x);
 x1=(x*PI)/180;
 x2=x1*x1;
 term=x1;
 sine=term;
 for(i=3;fabs(term)>ACC;i=i+2)
term = (x2*(-term))/(i*(i-1));
 sine = sine+term;
  }
  printf("\n%f",sine);
getch();
}
```

XIV. **Program:** WAP in C to find average of n numbers by using for loop.

```
#include<stdio.h>
#include<conio.h>
void main()
{
    int n,c;
    float a,sum=0;
    printf("enter a number\n");
    scanf("%d",&n);
    for(c=1;c<=n;c++)
    {
    sum=sum+c;
    }
}</pre>
```

```
printf("%d+",c);
}
a=sum/(n+1);
printf("=%f\n",sum);
printf("average=%f",a);
getch();
}
```

XV. **Program:** WAP in C to accept row wise & column wise element in a two dimensional array & print them.

```
#include<stdio.h>
#include<conio.h>
int main()
ł
int a[5][5],b[5][5],c[5][5],i,j,m,n;
printf("How many rows and columns?");
scanf("%d%d",&a,&b);
printf("\nEnter first matrix:\n");
for(i=0;i<m;++i)
for(j=0;j<n;++j)
scanf("%d",&a[i][j]);
printf("\nEnter second matrix:\n");
for(i=0;i<m;++i)
for(j=0;j<n;++j)
scanf("%d",&b[i][j]);
printf("\nMatrix after addition:\n");
for(i=0;i<m;++i)</pre>
for(j=0;j<n;++j)
{
c[i][j]=a[i][j]+b[i][j];
printf("%d ",c[i][j]);
}
printf("\n");
}
return 0;
```