

Class Notes	
Class: XI	Topic: Unit-3: Office Automation Tool (Calc, Impress)
Subject: Information Technology (802)	

- A spreadsheet stores data in the form of a table comprising of rows and columns.
- Spreadsheets are used to store, arrange, and sort data, and perform calculations on numeric data.
- Calc Main Window contains various toolbars such as – Title Bar, Menu Bar, Standard Bar, Formatting Bar, Status Bar, Find Bar, Side Bar, etc.
- A Spreadsheet consists of a number of individual sheets, each containing cells arranged in rows and columns.
- A particular cell is identified by its column letter and row number.
- The selected cell is called as an Active Cell.
- Various types of data can be entered in a cell such as labels, numbers or values, formulas.
- AutoFill feature in Calc is used to automatically generate data based on a defined series.
- To enhance the appearance of spreadsheets various formatting options are available in the Formatting Bar and Format Menu such as alignment, font, size, color, and style.
- Data can be searched and even replaced by using the Find toolbar.
- Formulas in Calc can be used for basic operations such as addition, subtraction, as well as more complex calculations such as income tax calculations, averaging.
- The advantage of using formulas in the cell is that even if the data in the cell is changed, Calc will automatically recalculate the answer without the need to rewrite the formula again. Another advantage of using formulas is that they can be easily copied to a number of cells.
- A cell reference identifies the location of a cell or group of cells in the worksheet. The cell reference is also called address of a cell.
- Calc has a set of predefined formulas called functions.
- Functions differ from formulas in the sense that in a formula we provide both the operands and the operator, however in functions, we only provide operands (or arguments) as functions have predefined operation to be performed on the arguments.
- Some of the commonly used functions in Calc are: SUM ( ), PRODUCT ( ), SQRT ( ), POWER ( ), ROUND ( ), AVERAGE ( ), etc.
- All cell references are by default relative i.e., they adjust and change when copied or when using AutoFill.

- Absolute addressing is used when the requirement is to retain the cell address even if it is copied to some other cell or when using AutoFill. Dollar signs (\$) are used to hold a column and/or row address constant.
- Mixed addressing is a combination of absolute and relative cell addressing. Whichever part (row or column) is prefixed with \$ remains unchanged and the ones not prefixed with \$ are calculated in a relative manner.
- Data can be easily sorted (increasing or decreasing order) in Calc by using the sort command available on the Standard toolbar and also in the Data menu.
- Data can be filtered in Calc for displaying it based on some conditions or filters. Filters can be applied by using the Filter option in the Data menu.
- Three types of filters can be applied – AutoFilter, Standard Filter, and Advance Filter.
- In Calc, you can create graphs and charts to represent the data graphically which help in analyzing spreadsheets containing a huge amount of data.
- Various types of charts can be created in Calc. It offers a choice of 10 chart types such as Column chart, Bar chart, Pie chart, Area chart, Line chart, Scatter chart, etc. Each of the chart types has several sub-types.
- A macro is a recording of each and every command and action you perform to complete a task.

Calc offers various options for printing spreadsheets such as a number of copies, selected sheets, selected cells etc.

**1. Consider the following table:**

	A	B	C
1	<b>Name</b>	<b>Marks out of 100</b>	<b>Remark</b>
2	Mohan	95	PASS
3	Sohan	65	PASS
4	Aman	45	FAIL
5	Raman	85	PASS
6	Japan	55	PASS
7	<b>Total</b>	345	
8	<b>Average</b>	69	

1. Write the formula to calculate the total marks obtained by each student.  
 =sum(B2:B6) or =(B2+B3+B4+B5+B6)

2. Write the formula to calculate the Average by using formula.  
 =AVERAGE(B2:B6)

3. Depending on the percentage write the following remarks using formula.  
 PASS: 50% or above  
 FAIL: less than 50%  
 =IF(B2 >=50; "PASS";"FAIL")

## 2. Consider the following table:

	A	B	C	D	E	F	G	H
1	ROLL NO	NAME	ENGLISH	HINDI	MATHS	TOTAL	%AGE	REMARK
2	1	SITA	100	50	75	225	75	C
3	2	GEETA	95	99	100	294	98	A
4	3	KAMAL	25	39	15	79	26.33	E
5	4	RITA	85	81	75	241	80.33	B
6	5	RAM	86	36	68	190	63.33	D
7		<b>Total</b>	391	305	333			
8		<b>Count</b>	5	5	5			
9		<b>Average</b>	78.2	61	66.6			

1. Write the formula to calculate the total marks obtained by each student.

=SUM(C2:E2)

2. Write the formula to calculate the Percentage of each student by using formula. Total marks 300.

=(F2/300)\*100

3. Write the formula to calculate the total count by using formula.

=COUNT(C2:C6)

4. Write the formula to calculate the Average by using formula.

=AVERAGE(C2:C6)

5. Depending on the percentage write the following remarks using formula.

A: 90% or above

B: 80% - less than 90%

C: 70% less than 80%

D: 60% - less than 70%

E: less than 60%

=IF(G2>=90;"A";IF(G2>=80;"B";IF(G2>=70;"C";IF(G2>=60;"D";"E"))))

Apart from SUM () there are various commonly used mathematical functions in Calc which are discussed as follows:

**PRODUCT (n1; n2...)** – To calculate the product of arguments n1, n2...

=PRODUCT(1;2;3;4;5)

120

**SQRT (n)** – To calculate the square root of a number n.

=SQRT(49)

7

**POWER (n; p)** – To calculate power p of a number n.

=POWER(4;2)

16

**ROUND (n; d)** – To round a number n to digits d.

=ROUND(10.6;0)

11

**RAND BETWEEN (f; l) – Returns a random number between f and l.**

=RANDBETWEEN(1;10)

9

**QUOTIENT (a; b) – To calculate integer quotient of division a/b.**

=QUOTIENT(10;2)

5

**ABS (n) – To calculate the absolute value of a number n.**

=ABS(-10)

10

**LOG (n; b) – To calculate log a number n to base b.**

=LOG(30;10)

1.4772

### **OPENOFFICE - IMPRESS**

- Presentation software allows creation of presentations having text, audio, video and pictures.
- OpenOffice Impress is an open source software for presentation.
- Tabs, Ruler bar, Status bar, Scrollbar and Slide Pane are the different components of OpenOffice Impress.
- OpenOffice Impress has eight tabs – File, Edit, View, Insert, Format, Tools, Slide Show, and Window.
- The slides can be viewed in different views – Normal, Outline, Notes, Handout, and Slide Sorter.
- Normal view is the main editing view for creating slides.
- Notes allows the user to make notes for the selected slides.
- Slide Sorter view presents slides in a miniature form.
- Slide Master allows making changes in appearance of the slides, applying changes to all slides in the presentation.
- File tab allows operations on a presentation, like, create, save, print, open and close.
- Edit tab is required to perform editing on the presentation, like, cut, copy, paste, find & replace, undo and redo changes.
- View tab consist of commands required for viewing the current presentation on the screen to view slides in different layouts, status bar, ruler and sidebar.
- Insert tab is required for inserting slide, page number, date and time, pictures, sound and hyperlinks in a presentation.
- Format tab allows formatting the slides - character, paragraph, slide design and slide layout.
- Tools tab contains commands to check spelling of content in the presentation.
- Slide Show tab consists of commands used on the presentation for better results.
- Slide transition is the pattern that applies when a slide goes from one to next.
- Slide animation is the pattern that applies to elements of a single slide.
- Windows tab consists of commands that work on a window, like, open and close a window.
- Help tab provides help to the user of OpenOffice Impress software.

**Note:** *‘Content developed/prepared absolutely from home.*