COMPUTER STUDIES NOTES

FORM 1

**Graphical Designs Software**

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**Pagemaker**

For the purpose of these lessons, we shall use PageMaker for our illustrations because it is the most widely used DTP software for beginners:  
DTP vary in design and formatting. For instance, the way we design a business card has different design layouts as compared to designing a newspaper.   
  
**Starting Adobe PageMaker**  
Screen Layout of PageMaker Application Window  
  
Setting up a Publication  
Document setup settings include  
Page size  
Refers to the different types of paper sizes supported by the selected printer.Common paper sizes include A3, A4, and A5 among other sizes  
  
***Dimension***These are the custom paper sizes. (When page size of your choice is not provided).

***Orientation***The layout of paper which can either be Tall (Portrait)  or wide( landscape)  
Options: This includes double sided, facing pages, adjust layout and restart page numbering. Double sided allows for the design of a front-back publication pages.   
  
***Margins:***The space from the edge of the paper to the printable area.Margins can be top, left and right as shown in this illustration  
  
***Editing***Editing in DTP is done using several tools. Among other available tools we have:  
Find and Replace tool  
Spelling tool   
Printing a Publication   
  
***Electronic Mail***e-mail: this refers to the use of computers in sending and receiving messages i.e. text, sound, video and graphics  
On-line meetings

This is two-way communication using electronic media such as chatting, group texting and blogging. In video-conferencing, cameras are used so that live pictures of people involved can be seen.  
  
For along time bursars and accounts clerks have been using ledger books to store numerical data for accounting work. Similarly in schools teachers use mark books for entering students scores in various subjects. In each case, data is entered manually. Incase of changes one has to cancel, rub, use whiteout or remove the paper and redo the work. This leads to untidy, tedious and time wasting task. With the advent of electronic spreadsheets, problems associated with data entry, modification, and manipulation has been solved. The provision of tools in electronic spreadsheet have made it easier to perform tasks previously carried out manually.

***By the end of the lesson, you should be able to:***

Define a spread sheet  
Describe the components of a spreadsheet  
State the application areas of a spreadsheet  
Create and edit a worksheet  
Explain different cell data types  
Apply cell referencing  
Apply data management skills  
Apply charting and graphing skills  
Print worksheet and graph.

1. Columns - The vertical segments that you see on the spreadsheet are called columns. (P). The illustration below shows column 'A'. Excel uses letters to represent columns. (P)
2. Rows -(P)The horizontal segments, that run left-to-right, are referred to as rows. The illustration below shows row 1.(P)Excel uses numbers to represent rows.(P)

The first cell, where column A and row 1 intersect is referred to as A1.   
Here's a picture of Cell A1:  
  
**Formatting a Cell**

Drag and Drop   
In excel, drag and drop is achieved by:

1. Selecting the cell(s) to be moved.
2. To select an individual cell, click that cell.
3. To select multiple contiguous cells, click and drag across the desired cells.
4. Point to and click the heavy border surrounding the cell(s).

5. The mouse pointer changes to a four-headed arrow.  
6. Hold the mouse button; drag the cells to the new location   
7. Drop the cells and release the mouse button.  
  
Note: If information already exists at the new location, a dialog box will appear asking if you want to replace the information. Respond accordingly.   
 **Cut and Paste**  
When using Cut and Paste, double check formulas to ensure that cell references are properly updated.

1. Select the cell(s) to be moved HINTS: To select an individual cell, click that cell.To select multiple contiguous cells, click and drag across the desired cells.

2. From the Edit menu, select Cut OR On the Standard toolbar, click CUT A moving border appears around your selection.

3. Select the cell where you want the cell(s) to be pasted

4. From the Edit menu, select Paste OR On the Standard toolbar, click PASTE   
  
  
**Internet Worms**

Internet worms will scan through all available network resources using local operating system services and scans the Internet for unprotected machines. They attempt to connect to these machines in order to gain full access to them.

***A Story***Here is another story about a Computer error linked to horrific Qantas jet plunge  
October 08, 2008 10:18am

A QANTAS aircraft flying from Singapore to Perth shot up 300 feet before pitching earthward after signaling to its pilots "irregularities" in its elevator control system.   
The "ghost in the machine'' malfunction which caused a mid-air drama leaving 46 people injured has puzzled air safety investigators who cannot recall a similar incident in aviation history.

Australian Transport Safety Bureau (ATSB) director of aviation safety investigation Julian Walsh said there was no doubt the Airbus A 330-300, traveling at 37,000 feet, had briefly taken control of itself.   
There are other numerous reported incidences due to computer errors and accidents.   
Errors and accidents in computer systems may be classified as;

* Human errors
* Procedural errors
* Software errors
* Electromechanical problems
* Dirty data

***Backup***

Backup refers to making copies of data so that these additional copies may be used to restore the original after a data loss event. These additional copies are typically called "backups." Backups are useful primarily for two purposes. The first is to restore a state following a disaster (called disaster recovery). The second is to restore small numbers of files after they have been accidentally deleted or corrupted.  
Functions of a Spreadsheet

***By the end of the lesson, you should be able to; (i) Utilize basic mathematical operators***

(ii) Apply basic mathematical formulae  
  
Multiplication   
Hold down the Ctrl key while you press "g" (Ctrl+g).(P) The Go To dialog box appears.(P)  
Type C1 in the Reference field.(P)  
Press Enter(P) Excel moves to cell C1(P)  
Type Multiply(P)  
Press Enter.(P) Excel moves down one cell.(P)  
Type 2 in cell C2.(P)  
Press Enter. Excel moves down one cell(P)  
Type 3 in cell C3.(P)  
Press Enter(P). Excel moves down one cell(P)  
Type =C2\*C3 in cell C4(P)  
Click the check mark on the Formula bar.(P) Excel multiplies C1 by cell C2(P) and displays the result in cell C3(P). The formula displays on the Formula bar(P)  
  
**Introducing Basic Functions and Formulae**  
Spreadsheets are used to perform basic mathematical functions for example automatically adding, multiplying and dividing. They can also be used to carry out statistical functions like finding the average, the largest and minimum value in a set of values, counting the number of cells that contain values within a range and even determining the rank of a number in a list by comparing its size relative to others.

A mathematical operator is the symbol or sign that represents an arithmetic operation in an Excel spreadsheet formula. The mathematical operators used in Excel formulas are similar to the ones we use in our maths class. These are: Subtraction - minus sign ( - ) Addition - plus sign ( + ) Division - forward slash

***Multiplication*** - asterisk (x ) Exponentiation - caret (^ )   
  
***Addition***

1. Type Add in cell A1.(P)
2. Press Enter. Excel moves down one cell.(P)
3. Type 1 in cell A2.(P)
4. Press Enter. Excel moves down one cell.(P)
5. Type 1 in cell A3.(P)
6. Press Enter. Excel moves down one cell.(P)
7. Type =A2+A3 in cell A4.(P)
8. Click the check mark on the Formula bar(P). Excel adds cell A1 to cell A2 and displays the result in cell A4. (P)The formula displays on the Formula bar(P).

**Note:** Clicking the check mark on the Formula bar is similar to pressing Enter(P). Excel records your entry but does not move to the next cell.  
  
***Subtraction***

1. Press F5. (P)The Go To dialog box appears.
2. Type B1 in the Reference field.(P)
3. Press Enter. Excel moves to cell B1.(P)
4. Type Subtract.(P)
5. Press Enter. Excel moves down one cell.(P)
6. Type 6 in cell B2.(P)
7. Press Enter. Excel moves down one cell.(P)
8. Type 3 in cell B3.(P)
9. Press Enter. Excel moves down one cell.(P)
10. Type =B2-B3 in cell B4.(P)
11. Click the check mark on the Formula bar. (P)Excel subtracts cell B3 from cell B2 and the result displays in cell B4.(P) The formula displays on the Formula bar.(P)

Press F5. The Go To dialog box appears.  
Type B1 in the Reference field.  
Press Enter. Excel moves to cell B1.  
Type Subtract.  
Press Enter. Excel moves down one cell.  
Type 6 in cell B2.  
Type 3 in cell B3.  
Type =B2-B3 in cell B4.  
Click the check mark on the Formula bar. Excel subtracts cell B3 from cell B2 and the result displays in cell B4. The formula displays on the Formula bar.  
Multiplication

1. Hold down the Ctrl key while you press (Ctrl+g). The Go To dialog box appears.
2. Type C1 in the Reference field.
3. Press Enter. Excel moves to cell C1
4. Type Multiply.
5. Press Enter. Excel moves down one cell.
6. Type 2 in cell C2.
7. Press Enter. Excel moves down one cell.
8. Type 3 in cell C3.
9. Press Enter. Excel moves down one cell.
10. Type =C2\*C3 in cell C4.
11. Click the check mark on the Formula bar. Excel multiplies C1 by cell C2 and displays the result in cell C3. The formula displays on the Formula bar

**Division**

1. Press F5.
2. Type D1 in the Reference field.
3. Press Enter. Excel moves to cell D1.
4. Type Divide.
5. Press Enter. Excel moves down one cell.
6. Type 6 in cell D2.
7. Press Enter. Excel moves down one cell.
8. Type 3 in cell D3.
9. Press Enter. Excel moves down one cell.
10. Type =D2/D3 in cell D4.
11. Click the check mark on the Formula bar. Excel divides cell D2 by cell D3 and displays the result in cell D4. The formula displays on the Formula bar.

When creating formulas, you can reference cells and include numbers. All of the following formulas are valid:  
=A2/B2  
=A1+12-B3  
=A2\*B2+12  
=24+53

**Piracy**

Computer piracy is the reproduction, distribution, and use of software without the permission of the owner of copy right

***Autosum***You can use the AutoSum button on the Home tab to automatically add a column or row of numbers.(P) 1. Select column D1 and D2 2. Press the AutoSum button. Excel selects the numbers it thinks you want to add. 2. Click the check mark on the Formula bar or press the Enter ke. 3. Excel adds the numbers. If Excel's guess as to which numbers you want to add is wrong, you can select the cells you want.  
Illustrating autosum

1. Go to cell F1.(P)
2. Type 3. (P)
3. Press Enter.(P) Excel moves down one cell.(P)
4. Type 3.(P)
5. Press Enter.(P) Excel moves down one cell.(P)
6. Type 3. (P)
7. Press Enter(P). Excel moves down one cell to cell F4.(P)
8. Choose the Home tab.(P)
9. Click the AutoSum button in the Editing group.(P) Excel selects cells F1 through F3 and enters a formula in cell F4.(P).