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Differences between an Electronic Spreadsheet and a Calculator   
An electronic spreadsheet: -   
1. Has more memory than calculator.   
2. Is able to perform complex logical operations, but a calculator cannot.   
3. Uses the large storage capacity of the computer that a calculator does not have.   
4. Has a large working area that a calculator does not have.   
Review Questions.   
1. Describe any five features of a spreadsheet program.   
2. State five features of spreadsheets that are useful in financial modelling.   
3. How does a spreadsheet differ from a Calculator?   
  
MICROSOFT EXCEL   
This is a Spreadsheet program that enables users to create electronic worksheets that can be used   
to perform simple & complex calculations using a computer.   
Ms-Excel has inbuilt functions that are used as shortcuts for performing mathematical, financial   
and statistical calculations.   
Starting Microsoft Excel.   
1. Click Start, point to Programs, then click Microsoft Excel.   
-OR-   
Click the Microsoft Excel icon, if it is displayed on the desktop.   
WORKSHEET LAYOUT (Features/ Parts/ Elements of the Ms-Excel Screen).   
(a). At the top of the window,   
♦ Title bar. It has the System /Control menu button on the left & the Resizing buttons   
on the right.   
♦ Menu bar.   
♦ Toolbars, e.g., Standard & Formatting toolbars. They contain the Toolbar buttons.   
♦ Name box – displays the active cell, e.g., A1.   
♦ Formula bar: A bar at the top of the Ms-Excel window that is used to enter or edit   
values or formulas in cells or charts. It also displays the constant value or formula   
stored in the active cell.   
To display or hide the formula bar, click Formula bar on the View menu.   
(b). Column Identifiers (or Column headers) – Letters that identify the columns.   
(c). Row Identifiers (or Row headers) – numbers that identify the rows.   
A Worksheet has a total of 256 columns & 65,536 rows.   
(d). Active (Current) cell – the cell in which the selection box (Cell pointer) is placed.   
(e). Cell Pointer.   
(f). Gridlines - the thin lines that indicate the cell boundaries in a worksheet.   
(g). At the bottom of the window,   
♦ Status bar - displays different indicators about the current working environment.   
To display or hide the Status bar, click Status bar on the View menu.   
♦ Sheet tabs – these are names of the sheets that appear at the bottom of the workbook   
window.   
♦ Tab scrolling buttons - They enable the user to select and use a different sheet.   
♦ Scroll bar, scroll box & the scroll arrows.   
Scroll bars are the shaded bars along the right side and bottom of a window. To scroll   
to another part of the file, click the arrows in the scroll bar or drag the scroll box.

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THE WORKSHEET:   
a. This is the primary document in a Spreadsheet program that is used to store & work with   
data.   
b. A Worksheet is a tool that is used for maintaining numeric data in a tabular form,   
simplifying numerous calculations and presenting numerical data graphically.   
  
A worksheet is basically a page stored in a workbook, and acts as the working area.   
  
A Worksheet consists of cells that are organized into columns & rows in which data entries   
are made.   
Columns: – These are fields that make up the worksheet of a Spreadsheet. A Column is a   
vertical arrangement of cells.   
Rows: – These are records that form a worksheet. A Row is usually a horizontal   
arrangement of cells.   
Cell:   
ϖ A box formed when a row & a column intersect in a worksheet or a table, where the data   
is entered.   
  
A cell is referred to or identified by use of the column letter heading & the row number   
heading (e.g., A1 refers to the first cell).   
A Worksheet can be used in:   
(a). A Company Sales Report to show the sales for each item over the year.   
(b). An Employees‟ Payroll to calculate the employee‟s salaries for each month.   
(c). A Students Progress record to store information on student‟s marks and monitor their   
progress.   
(d). Personal Expenses to maintain a budget of your monthly expenses.   
(e). Mortgage Repayment Calculations to calculate the monthly repayment amount on a   
mortgage loan.   
  
To Insert a single new worksheet.   
1. On the Insert menu, click Worksheet.   
Selecting worksheets.   
To select Do this   
A single sheet Click the tab for the sheet.   
Two or more adjacent sheets Click the tab for the first sheet, hold down the   
SHIFT key, then click the tab for the last sheet.   
When you select a sheet, the color of its tab will   
change to white.   
Two or more nonadjacent sheets Click the tab for the first sheet, hold down CTRL   
key, then click the tabs for the other sheets.   
All sheets in a workbook Right-click a sheet tab, then click Select All Sheets   
on the shortcut menu.   
Note. To deselect the sheets, click inside any of the worksheets.   
  
To Rename a worksheet (Giving meaningful names to sheets).   
  
1. Click the tab for the sheet you want to rename.   
2. On the Format menu, point to Sheet, then click Rename.   
The current name for that sheet will be selected.   
3. Press Backspace or Delete, type a new name, then press ENTER.

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To Delete worksheets.   
1. Select the worksheet(s) you want to delete.   
2. On the Edit menu, click Delete Sheet.   
  
To Hide a worksheet.   
1. Select the sheet(s) you want to hide.   
2. On the Format menu, point to Sheet, then click Hide.   
To Display a hidden worksheet.   
1. On the Format menu, point to Sheet, then click Unhide.   
2. In the Unhide sheet box, double-click the name of the hidden sheet you want to display.   
  
Ms-Excel add-ins - Components that can be installed on your computer to add commands and   
functions to Excel. These add-in programs are specific to Excel.   
CREATING A NEW WORKBOOK.   
To create a new, blank workbook.   
1. On the File menu, click New, then click Blank Workbook on the New Workbook task   
pane.   
To create a new workbook based on the default workbook template.   
1. Click on the New workbook icon on the Standard toolbar.   
TYPES OF DATA IN SPREADSHHETS.   
(1). Labels (Text).   
ϖ Labels are texts consisting of alphanumeric characters that can be entered into a cell.   
E.g., Item codes such as Salary, Names such as John.   
ϖ Labels are made up of alphanumeric character strings.   
In Excel, Text is any combination of numbers, spaces, & nonnumeric characters.   
E.g., 10A19, 27AXY, 12-976, 208 4675.   
(2). Values (Numbers).   
Values consist of numerals & mathematical formulas entered into a cell.   
In Excel, a number can contain only the following characters: digits 0 to 9 + - ( ) / $ %.   
(3). Formulas.   
ϖ A Formula is a sequence of values, cell references, functions & arithmetic operators   
whose calculation results to a numeric value.   
ϖ It is an equation that performs operations on worksheet data.   
Formulas can perform mathematical operations such as addition, subtraction, division and   
multiplication.   
A Formula is used to tell Ms-Excel how you want a particular value to be computed.   
(4). Functions.   
ϖ It is a special command, which you can type into your formula to perform arithmetic   
operations.   
ϖ It is an inbuilt equation that is used for calculations.   
ϖ A Function is a short predefined (inbuilt) formula used to perform a given specific task.   
Functions can be used to perform both simple and complex calculations.

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EDITING CELL CONTENTS.   
1. Double-click on the cell that contains the data you want to edit.   
-Or-   
Click in the cell, then press F2.   
2. Edit (make changes to) the cell contents.   
E.g., if you had left out a character, use the Left or Right Arrow key to move the insertion   
point to the position of the correction, then type the character. If you had typed wrong   
characters, use the Backspace or Delete to erase them.   
3. To enter your changes to the active cell, press ENTER, then use the Arrow keys to move to   
another cell.   
  
SAVING WORKBOOKS.   
Purpose.   
√ In order to use the worksheet at a later time.   
√ If the saving is done periodically, say every 1 minute, it helps prevent data loss in case of   
power failure.   
When you save a workbook for the first time, you assign a file name and indicate where you   
want to store the file on your computer‟s hard disk or in another location. Each time you   
subsequently save the workbook, Ms-Excel updates the workbook file with your latest changes.   
To save a new, unnamed workbook.   
1. Click the Save button on the Standard toolbar.   
-OR-   
On the File menu, choose Save (or press CTRL+S) to display the Save As dialog box.   
2. In the File name box, enter a name for the worksheet.   
3. In the Save in list, select the drive and/or folder where you want the worksheet to be saved.   
4. Click the Save button.   
To save a copy of a workbook (or save a workbook with a new name).   
1. Open the workbook you want to make a copy of.   
2. On the File menu, click Save As....   
3. In the File name box, enter a new name for the file.   
To save the copy in a different folder or drive, click a different location in the Save in list.   
4. Click the Save button.   
To save workbooks automatically as you work.   
1. On the Tools menu, click Options, click the Save tab, then select the Save AutoRecover   
info every checkbox.   
2. In the minutes box, enter the interval for how often you want to save files.   
  
OPENING A SAVED WORKSHEET.   
Purpose.   
You can open a saved worksheet (i.e., a worksheet stored on the hard disk of the computer or on   
a floppy disk) in order to:   
√ Continue working on it, if it was saved before completion.   
√ View the data it contains.   
√ Update it, if the data it contains represents information that changes periodically. For   
example, A Weekly report.   
1. Choose Open on the File menu,   
-OR-   
Click the Open button on the Standard toolbar (or press CTRL+O) to display the Open   
dialog box.

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2. In the Look in drop down list, click the drive or folder that contains the file you want to   
open.   
3. In the folder list, locate and open the folder that contains the file.   
4. Double-click the file you want to open (or click the file, and then click the Open button).   
Note. To open a recently opened file, select it from the bottom of the File menu.   
  
Exiting / Quitting Ms-Excel.   
Purpose.   
√ You exit from Ms-Excel when you have finished working with it.   
1. On the File menu, click Exit.   
-OR-   
Press ALT+F4),   
-OR-   
Click the Close button on the top right hand corner of the Title bar of the Ms-Excel window.   
If the workbook was not saved before or the changes made to the open workbook are not saved,   
Ms-Excel will give you an option to save those changes by displaying the Save As dialog box.   
Choose Yes to save the changes, or No to discard the changes.   
  
SELECTING DATA IN CELLS, ROWS OR COLUMNS.   
To select Do this:   
A single cell Click the cell, or press the Arrow keys to move to the cell.   
Text in a cell Double-click in the cell (or click in the cell, press F2 to   
display the Insertion point), then select the text in the cell.   
A range of cells 1. Click the first cell of the range, hold down the left mouse   
button, then drag to the last cell in the range.   
-OR-   
Click the first cell in the range, hold down SHIFT key,   
then click the last cell in the range.   
-OR-   
Click the first cell in the range, hold down SHIFT key,   
then use the Arrow keys to extend the selection.   
All cells on a worksheet Press CTRL+A (or on the Edit menu, click Select All).   
Nonadjacent cells or cell ranges Select the first cell or range of cells, hold down CTRL &   
select the other cells or ranges.   
An entire row or column Click the row or column heading.   
  
Adjacent rows or columns Drag across the row or column headings.   
-OR-   
Select the first row or column, hold down SHIFT key, then   
select the last row or column.   
Nonadjacent rows or columns Select the first row or column, hold down CTRL & select   
the other rows or columns.   
Note. To cancel a selection of cells, click any cell on the worksheet.   
A Range is any group of cells in a worksheet. The cells in a range can be adjacent or   
nonadjacent.

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Clearing cell contents.   
Clearing cells removes the cell contents (formulas and data), or formats (such as number   
formats, and borders), but leaves the blank cells on the worksheet.   
1. Select the cells, rows, or columns you want to clear.   
2. On the Edit menu, point to Clear, then click Formats or Contents.   
Clicking All, will clear formats and contents, and also remove any cell comments and data   
validation.   
Note. If you click a cell and then press the DELETE key, Ms-Excel will remove the cell   
contents but does not remove comments or cell formats.   
Inserting blank cells, rows, or columns.   
Purpose.   
√ You can insert a row or column, to make room for additional information in the worksheet.   
This may be necessary when some extra information, which was not expected earlier, needs   
to be included.   
To Insert new blank cells.   
1. Select a range of existing cells where you want to insert the new blank cells. Select the same   
number of cells as you want to insert.   
2. On the Insert menu, click Cells.   
3. In the Insert dialog box, click Shift cells right, Shift cells down, Entire row, or Entire   
column.   
To Insert Rows.   
1. To insert a single row, select a row (or click a cell in the row) immediately below where you   
want the new row to appear.   
For example, to insert a new row above row 5, click a cell in row 5. To insert multiple rows,   
select the same no. of rows as you want to insert.   
2. On the Insert menu, click Rows.   
To Insert Columns.   
1. To insert a single column, select a column (or click a cell in the column) immediately to the   
right of where you want the new column to appear.   
For example, to insert a new column to the left of column B, click a cell in column B. To   
insert multiple columns, select the same no. of columns as you want to insert.   
2. On the Insert menu, click Columns.   
  
Deleting cells, rows, or columns   
Deleting removes the cells from the worksheet and shifts the surrounding cells to fill the space.   
1. Select the cells, rows, or columns you want to delete.   
2. On the Edit menu, click Delete.   
3. If you are deleting cells, the Delete Cells dialog box appears. Click Shift cells left, Shift   
cells up, Entire row, or Entire column.   
Exercise (a).   
1. How many columns are there in an Excel worksheet?   
2. Identify and explain the FOUR types of data in Spreadsheets.   
3. Explain how you would do the following operations on a Worksheet in Microsoft Excel.   
(i). Rename a worksheet.   
(ii). Delete a worksheet.   
(iii). Insert a single new worksheet.

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(iv). Move from one worksheet to another.   
(v). Select a cell.   
(vi). Select a range of cells.   
(vii). Select nonadjacent cells or cell ranges.   
(viii). Select everything in a worksheet.   
4. Define the following terms as used in Spreadsheets: (6 marks)   
(i). Cell.   
(ii). Formula.   
(iii). Labels.   
5. What is the difference between Clearing cells and Deleting cells?   
Exercise (b).   
1. What is the meaning of each of the following concepts?   
(i). Labels.   
(ii). Values.   
(iii). Formula.   
(iv). Function.   
2. Distinguish between Labels and Formulae with respect to Spreadsheets.   
Exercise (c).   
1. List FOUR types of information that can be entered into a cell. (4 marks).   
2. Explain THREE cell data types in spreadsheet. (6 marks).   
POSITIONING (ALIGNING) DATA IN A CELL.   
Purpose.   
√ Adjusting the alignment of the cell contents, helps to distinguish different types of   
information in cells.   
Usually when you enter text data into a worksheet, it is normally aligned to the left in a cell,   
while numbers, dates & times are aligned to the right.   
To center the data, or align data to the left or right in a cell.   
  
1. Select the cells with the data you want to reposition.   
2. On the Formatting toolbar, click the appropriate alignment button.   
• Click the Align Left button - to align text to the left of the cell.   
• Click the Center button - to center text in the cell.   
• Click the Align Right button - to align text to the right.   
Merging cells across columns.   
You can easily merge headings across the top of a range of cells. When you merge cells, the   
selected cells are combined into one cell. This spreads the content of one cell over many cells.   
1. Copy the data you want into the upper-leftmost cell within the range.   
2. Select the cells you want to merge.   
Warning. Excel places only the data in the upper-leftmost cell of the selected range into the   
resulting merged cell. If there is data in other cells, the data is deleted when you merge the   
cells.   
3. To merge cells in a row or column and center the cell contents, click the Merge and Center   
button on the Formatting toolbar,   
-Or-   
On the Format menu, click Cells, click the Alignment tab, then select the Merge cells   
checkbox.   
This will combine the cells and center the heading in the new, wider cell.   
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HIDING ROWS OR COLUMNS.   
Purpose.   
√ Hiding rows or columns prevents the display and printing of data held in particular rows or   
columns. For instance, when your rows or columns contain confidential formulas not   
necessary in the printed report.   
1. Select the rows or columns you want to hide.   
2. On the Format menu, point to Row or Column, then click Hide.   
The selected rows or columns including their headings will not be visible.   
To display a hidden row or column.   
1. To display hidden rows, select the row below and the row above the hidden rows.   
To display hidden columns, select the column to the left and the column to the right of the   
hidden columns. For example, to redisplay hidden column C, select column B & column D.   
If you want to redisplay noncontiguous columns, say, column C, D & F, select all the   
columns from B through G, i.e. columns B, E & G.   
2. On the Format menu, point to Row or Column, then click Unhide.   
Tip. If the first row or column of a worksheet is hidden, to display it;   
1. Click Go To on the Edit menu.   
2. In the Reference box, type A1, and click OK.   
3. On the Format menu, point to Row or Column, then click Unhide.   
APPLYING BORDERS, SHADINGS & PATTERNS TO A WORKSHEET.   
You can apply borders to cells, shade cells with a background color, or shade cells with a color   
pattern in order:   
Purpose.   
√ To distinguish between different types of information in a worksheet.   
√ To make the worksheet more appealing to the eye.   
√ To draw attention to important data in the worksheet.   
To Apply a Border to cells.   
1. Select the range of cells that you want to put a border around.   
2. On the Format menu, select Cells. In the resulting dialog box, click on the Border tab.   
3. Under the Presets section, select the Border style you want, e.g. Outline or Inside borders or   
both.   
4. To change the line style for the border, click a style in the Style list, and then click a button to   
indicate the border placement.   
You can specify the colour of the lines from the Color drop-down list.   
5. Click the OK button when you are done.   
To Apply or Remove cell Shadings.   
1. Select the cells you want to apply shading to or remove shading from.   
2. On the Format menu, click Cells, then click the Patterns tab.   
3. In the Cell shading box, click the color you want to shade the cells with.   
4. To include a background color with the pattern, click the arrow next to the Pattern box, then   
click the pattern style and color you want.   
5. Click the OK button.   
The borders, shades and patterns that you have specified all apply to the range you had   
selected.

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FORMATTING NUMBERS IN A WORKSHEET.   
Purpose.   
Formatting of numbers in a worksheet can make your worksheet much more presentable.   
For example,   
√ Long numbers without commas are difficult to read.   
√ Too many uneven decimal places in a worksheet make it difficult to compare figures.   
√ A worksheet that has some figures with six decimal places, others with commas and others   
with no decimal places has an untidy appearance.   
To Add or Remove the Thousands separator in a number.   
Method 1.   
1. Select the range of cells containing the numbers whose format you want to change.   
2. Click the Comma Style (,) button on the Formatting toolbar.   
Method 2.   
1. On the Format menu, click Cells, then click the Number tab.   
2. In the Category list, click Number.   
3. Select or clear the Use 1000 separator (,) checkbox.   
All numbers in the selected range will be displayed with commas separating the thousands   
and with two decimal points, e.g., 7,375.00   
To Change the no. of Decimal places displayed in a number.   
Method 1.   
1. Select the range of cells whose decimal places you want to change.   
2. To display more digits after the decimal point (to increase the no. of decimal places), click   
the Increase Decimal button on the Formatting toolbar.   
To display fewer digits after the decimal point (to decrease the no. of decimal places), click   
the Decrease Decimal button.   
  
Method 2:   
1. On the Format menu, click Cells, then click the Number tab.   
2. In the Category list, click Currency, Accounting, Percentage, or Scientific.   
3. In the Decimal places box, enter the number of decimal places you want to display.   
If you want to change the currency symbol, click the symbol you want to use in the Symbol   
list.   
To Display numbers as Percentages or Fractions.   
Method 1.   
To quickly display nos. as percentages of 100, click the Percent Style (%) button on the   
Formatting toolbar.   
Method 2.   
1. Select the range cells you want to format as percentages.   
2. On the Format menu, click Cells, then click the Number tab.   
3. To display nos. as percentages, click Percentage in the Category list. In the Decimal places   
box, enter the number of decimal places you want to display.   
4. To display nos. as fractions, click Fraction in the Category list, then click the type of   
fraction you want to use.

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To Add or Remove a Currency symbol.   
Method 1.   
  
1. Select the range of cells you want to format as currency.   
2. Click the Currency Style ($) button on the Formatting toolbar.   
Method 2.   
  
1. On the Format menu, click Cells, then click the Number tab.   
2. In the Category list, click Currency.   
3. In the Symbol list, select the currency symbol that you want.   
To remove a currency symbol, click None in the Symbol list.   
To Display minus signs on negative numbers.   
1. Select the cells you want to change.   
2. On the Format menu, click Cells, then click the Number tab.   
For simple numbers, click Number in the Category list.   
For currency, click Currency in the Category list.   
3. In the Negative numbers box, select the display style for negative numbers.   
To Reset a number format.   
1. Select the cells you want to reset to the default number format.   
2. On the Format menu, click Cells, then click the Number tab.   
3. In the Category list, click General.   
Exercise.   
1. Explain step-by-step how you would perform the following operations on a worksheet in   
Microsoft Excel.   
(i). Enter data into a worksheet cell.   
(ii). Edit cell contents.   
(iii). Make text in a cell Bold, Italic and double-underlined.   
(iv). Adjust a column width to accommodate the longest cell entry in a range of cells.   
2. Explain what are Label prefixes in spreadsheets. (10 Mk)   
3. A worksheet table has columns A through N. The Chief Accountant doesn‟t require the   
information contained in columns E, F and G. Give a step-by-step procedure on how to make   
sure that only the columns with the required information are printed.   
4. You have the number 435273.7865 in a cell. How will it look if you format the cell as   
commas and 2 decimal places?   
  
FINDING RECORDS.   
Purpose.   
√ Suppose you wanted to view records that meet given conditions, you would have to sort the   
table according to the conditions so as to find out where those records appear in the list.   
Such conditions are referred to as „Criteria’.   
However, this method will require you to sort the table whenever you want to find something   
different.   
Ms-Excel offers an easier solution to this through the Filter command on the Data menu.   
1. Click on any cell in the table that contains the records you want to search for.   
2. On the Data menu, choose Filter, then select AutoFilter from the submenu.   
A downward arrow appears on the right of each field name.   
3. Click the down arrow on a column to display the conditions that can be set. Select a   
condition (Criteria) from that list.