ELEMENTARY COMPUTER KNOWLEDGE

Chapter: MS Office

Study Notes for State & Central Government Job Examinations
(West Bengal PSC, WBP, Clerkship, Miscellaneous, Railway, SSC, Banking and similar exams)

Topics Covered in This Chapter

No.	Topic	What You Will Learn
1	MS Word: Basic Features	Word screen, ribbon tabs, formatting, page setup, tables, mail merge, shortcuts
2	MS Excel: Rows, Columns, Formula and Functions	Cell address, range, operators, cell references, important functions, error values
3	MS PowerPoint: Presentation Basics	Slides, layouts, views, transitions, animations, slide show shortcuts
4	Basic Spreadsheet Operations	Data entry, AutoFill, sorting, filtering, charts, freeze panes, printing
5	Quick Revision Tables	File extensions, shortcut keys, one-line facts
6	Practice Set	50 MCQs with Answer Key

How to Use These Notes

Questions on MS Office are asked in almost every government exam under the heading **Computer Knowledge / Elementary Computer Knowledge**. The questions are usually direct and factual: a shortcut key, a file extension, the use of a tab, the output of a formula or the name of a feature. Read each section, memorise the tables, and then attempt the 50 MCQs at the end without looking at the answers.

Study Tip
• Learn the **shortcut keys** and **file extensions** first; they are the most repeated questions.
• Practise the formulas on a real computer or a mobile spreadsheet app. What you type yourself is remembered longer.
• Revise the Quick Revision tables (Section 5) one day before the exam.

Introduction to MS Office

Microsoft Office (MS Office) is an office productivity suite developed by **Microsoft Corporation**. It is a collection of application programs used to create documents, calculate and analyse data, make presentations, manage databases and send e-mails. It is *application software*, not system software. It runs on Windows and macOS, and a web version (Office on the web) is also available.

Application	Type of Software	Main Use	Default Extension
MS Word	Word processor	Letters, reports, resumes, books	.docx
MS Excel	Spreadsheet	Calculations, data analysis, charts	.xlsx

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Application	Type of Software	Main Use	Default Extension
MS PowerPoint	Presentation	Slide shows, training, seminars	.pptx
MS Access	Database (DBMS)	Storing and managing related data	.accdb
MS Outlook	E-mail client / PIM	E-mail, calendar, contacts, tasks	.pst (data file)
MS Publisher	Desktop publishing	Brochures, newsletters, cards	.pub
MS OneNote	Note-taking	Digital notebook	.one

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1. MS Word: Basic Features

1.1 What is MS Word?

MS Word is a **word processing** program used to create, edit, format, save and print text-based documents such as letters, applications, reports, notices and resumes. A file created in Word is called a **document**. The default extension is **.docx** (Word 2007 and later); older versions (Word 97-2003) used **.doc**. A Word template has the extension **.dotx**.

Ways to start MS Word

- Click **Start** button, then choose **Word** from the list of programs.
- Press **Windows key + R** to open the Run box, type **winword** and press Enter.
- Double-click a Word document icon (opens the program along with that file).

1.2 Components of the Word Window

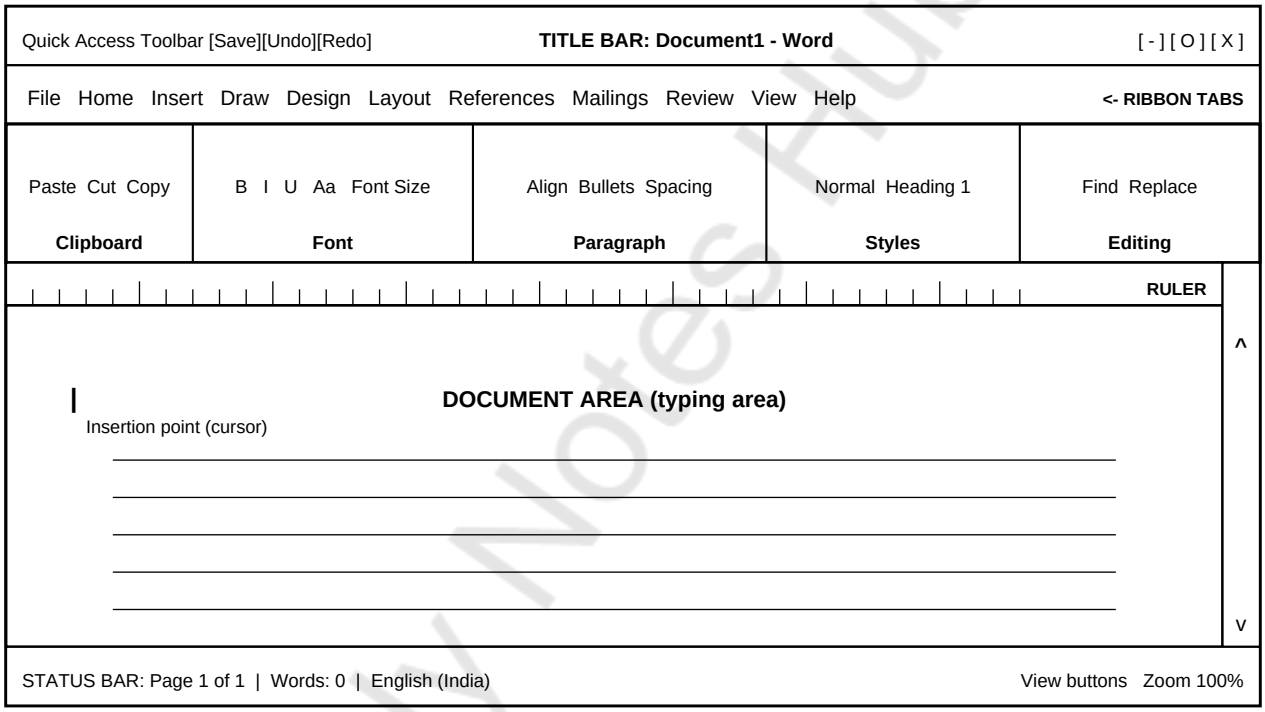


Fig. 1: Main parts of the MS Word window (schematic)

Component	Function
Title Bar	Shows the name of the document and the application; has the Minimize, Maximize/Restore and Close buttons.
Quick Access Toolbar (QAT)	Small toolbar with frequently used commands: Save, Undo, Redo. It can be customised.
Ribbon	Strip of commands arranged in tabs and groups. It replaced the menus and toolbars of Word 2003.
File Tab (Backstage View)	Contains New, Open, Save, Save As, Print, Share, Export, Close and Options.
Ruler	Used to set margins, indents and tab stops. Horizontal and vertical rulers are available.
Document Area	The blank area where text is typed. The blinking vertical line is the **insertion point** (cursor).
Scroll Bars	Move through the document vertically and horizontally.

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Component	Function
Status Bar	Shows page number, word count, language, view buttons and zoom slider.

1.3 Ribbon Tabs of MS Word

Tab	Important Groups / Commands
Home	Clipboard (Cut, Copy, Paste, Format Painter), Font, Paragraph, Styles, Editing (Find, Replace, Select)
Insert	Pages (Cover Page, Page Break), Table, Pictures, Shapes, Hyperlink, Header & Footer, Page Number, Text Box, WordArt, Drop Cap, Symbol, Equation
Design	Document themes, Watermark, Page Colour, Page Borders
Layout (Page Layout)	Margins, Orientation, Size, Columns, Breaks, Line Numbers, Indent, Spacing
References	Table of Contents, Footnote, Endnote, Citations, Bibliography, Captions
Mailings	Mail Merge, Envelopes, Labels, Start Mail Merge, Select Recipients
Review	Spelling & Grammar, Thesaurus, Word Count, Comments, Track Changes, Accept / Reject
View	Views (Print Layout, Read Mode, Web Layout, Outline, Draft), Zoom, Ruler, Gridlines, Navigation Pane

1.4 Basic Features of MS Word

(a) File operations

- **New** (Ctrl+N): opens a blank document. **Open** (Ctrl+O): opens a saved file.
- **Save** (Ctrl+S): saves the file with its current name. **Save As** (F12): saves with a new name, location or format.
- **Print** (Ctrl+P): opens the print settings and print preview. **Close** (Ctrl+W).
- A document can also be saved as **PDF**, **.txt** (plain text), **.rtf** (Rich Text Format) or **.dotx** (template).

(b) Editing

- **Cut** (Ctrl+X), **Copy** (Ctrl+C) and **Paste** (Ctrl+V) use a temporary storage area called the **Clipboard**.
- **Undo** (Ctrl+Z) reverses the last action; **Redo** (Ctrl+Y) repeats it again.
- **Find** (Ctrl+F) opens the Navigation pane to search text; **Replace** (Ctrl+H) finds text and replaces it with other text; **Go To** (Ctrl+G) jumps to a page, line or bookmark.
- **Select All** (Ctrl+A) selects the whole document. Triple-click selects a paragraph; double-click selects a word.
- **Format Painter** copies the formatting of selected text and applies it to other text.

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(c) Formatting

Type	Features	Examples
Character (Font) formatting	Font name, size, bold, italic, underline, strikethrough, subscript, superscript, font colour, highlight, change case	Ctrl+B Bold; Ctrl+I Italic; Ctrl+U Underline; Ctrl+= Subscript; Ctrl+Shift+= Superscript; Shift+F3 Change Case
Paragraph formatting	Alignment (Left, Center, Right, Justify), line spacing, indents, bullets, numbering, borders, shading	Ctrl+L Left; Ctrl+E Center; Ctrl+R Right; Ctrl+J Justify
Page formatting	Margins, orientation, paper size, columns, page border, header, footer, page numbers	Portrait (vertical) and Landscape (horizontal)
Styles	Predefined sets of formatting such as Normal, Heading 1, Heading 2, Title	Used to create a Table of Contents

Font size is measured in **points** (1 inch = 72 points). **Subscript** lowers a character (H_2O) and **superscript** raises a character (X^2).

(d) Page Setup and Layout

- **Margin**: the blank space between the text and the edge of the paper (Top, Bottom, Left, Right).
- **Orientation**: Portrait (height more than width) or Landscape (width more than height).
- **Page Break** (Ctrl+Enter) starts a new page; **Section Break** divides a document into sections with different formatting.
- **Header** is text repeated at the top of every page; **Footer** is text repeated at the bottom (for example, page numbers).
- **Footnote** appears at the bottom of the same page; **Endnote** appears at the end of the document.
- **Watermark** is faint text or a picture behind the content such as DRAFT or CONFIDENTIAL.
- **Drop Cap** makes the first letter of a paragraph large and drops it over two or more lines.

(e) Tables in Word

A **table** is a grid of **rows** (horizontal) and **columns** (vertical). The box formed by the intersection of a row and a column is a **cell**. A table is inserted using **Insert > Table**. Useful commands are **Merge Cells**, **Split Cells**, **Insert Row/Column**, **Delete**, **Borders** and **Shading**. Pressing the **Tab** key moves the cursor to the next cell; pressing Tab in the last cell adds a new row.

(f) Proofing tools (Review tab)

- **Spelling & Grammar** (F7): checks spelling mistakes. Red wavy line = spelling error; blue/green wavy line = grammar error.
- **Thesaurus** (Shift+F7): suggests synonyms (words of similar meaning).
- **Word Count**: counts pages, words, characters and lines.
- **Track Changes** records every edit made; **Comments** add notes for the reviewer; **Accept/Reject** finalises the changes.
- **AutoCorrect** automatically fixes common typing errors; **AutoSave** saves the work automatically at regular intervals.

(g) Mail Merge

Mail Merge is used to create many personalised copies of the same letter, for example sending an interview call letter to 500 candidates with different names and addresses. It is found in the **Mailings** tab and needs two documents: the **Main Document** (the letter with fields) and the **Data Source** (list of names and addresses, such as an Excel sheet). The final result is called the **Merged Document**.

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(h) Views in MS Word

View	Use
Print Layout	Default view. Shows the document exactly as it will be printed (headers, footers, margins).
Read Mode	Full-screen view designed for easy reading.
Web Layout	Shows the document as a web page.
Outline	Shows headings and levels; used to organise long documents.
Draft	Shows only text with minimal formatting; fast for typing.

1.5 Important Shortcut Keys of MS Word

Shortcut	Action	Shortcut	Action
Ctrl + N	New document	Ctrl + B	Bold
Ctrl + O	Open document	Ctrl + I	Italic
Ctrl + S	Save	Ctrl + U	Underline
F12	Save As	Ctrl + L / E / R / J	Left / Center / Right / Justify
Ctrl + P	Print	Ctrl + A	Select all
Ctrl + W	Close document	Ctrl + C / X / V	Copy / Cut / Paste
Ctrl + Z / Y	Undo / Redo	Ctrl + F	Find (Navigation pane)
Ctrl + H	Replace	Ctrl + G	Go To
Ctrl + Enter	Page break	F7	Spelling and grammar
Shift + F3	Change case	Shift + F7	Thesaurus
Ctrl + Home / End	Start / end of document	Ctrl + K	Insert hyperlink
Alt + F4	Close the application	Ctrl +] / [	Increase / decrease font size

Exam Facts: MS Word
- Default extension: **.docx**; older: **.doc**; template: **.dotx**.
- Mail Merge is in the **Mailings** tab; Spell Check is in the **Review** tab (shortcut **F7**).
- Default view is **Print Layout**. Default alignment is **Left**. Default orientation is **Portrait**.
- **Ctrl+Enter** = page break, **Shift+Enter** = line break, **Enter** = new paragraph.
- **Ctrl+F** = Find, **Ctrl+H** = Replace, **Ctrl+G** = Go To.

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2. MS Excel: Rows, Columns, Formula and Functions

2.1 What is MS Excel?

MS Excel is a **spreadsheet** program used to store data in rows and columns, perform calculations, analyse data and draw charts. A file in Excel is called a **workbook** and each page inside the workbook is a **worksheet**. The default extension is **.xlsx** (Excel 2007 and later); older versions used **.xls**. A macro-enabled workbook has the extension **.xlsm** and a template is **.xltx**.

2.2 Rows, Columns and Cells

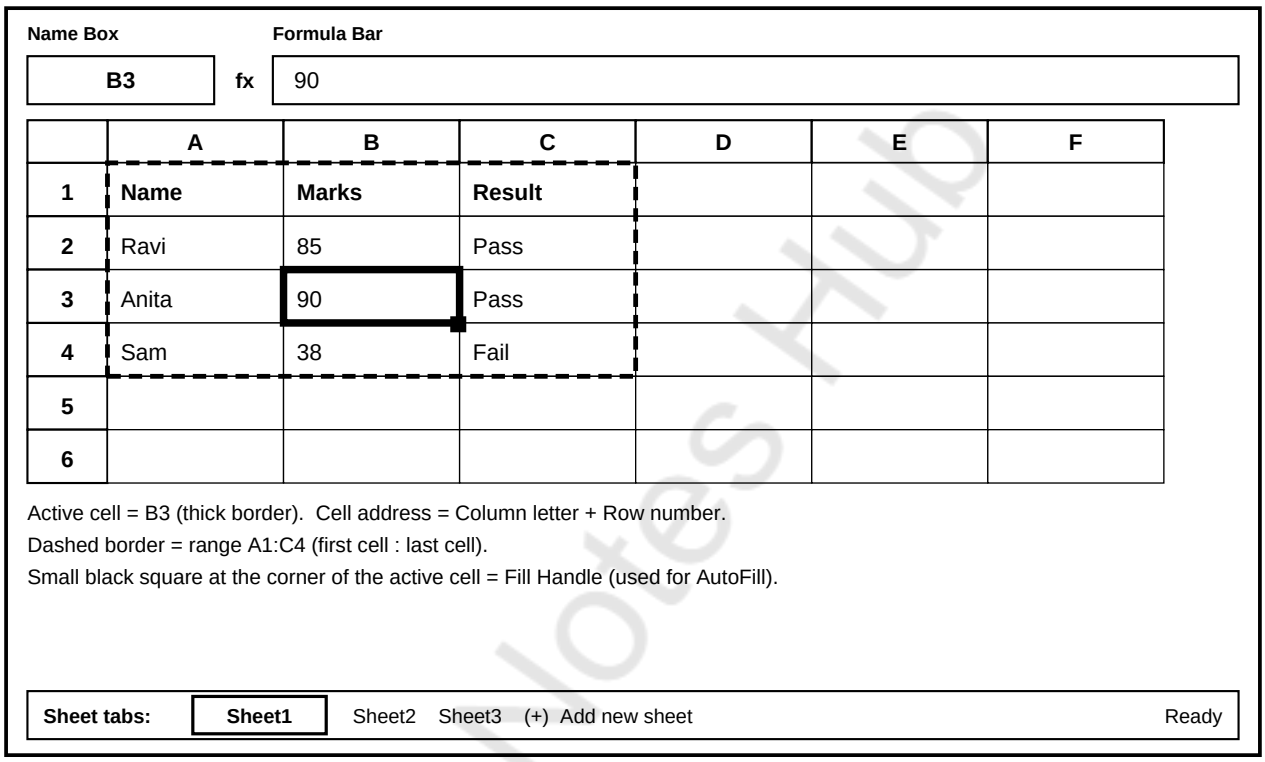


Fig. 2: Excel worksheet showing rows, columns, active cell, range, Name Box and Formula Bar

Term	Meaning	Fact to Remember
Row	Horizontal line of cells, identified by numbers (1, 2, 3 ...)	Maximum **1,048,576** rows (Excel 2007 onwards). Excel 2003 had 65,536 rows.
Column	Vertical line of cells, identified by letters (A, B, C ... Z, AA, AB ...)	Maximum **16,384** columns; last column is **XFD**. Excel 2003 had 256 columns (last column IV).
Cell	Intersection of a row and a column; the basic unit of a worksheet	Cell address = column letter + row number, e.g. **C5**.
Active Cell	The currently selected cell, shown with a thick border	Its address appears in the **Name Box**.
Range	A group of adjacent cells	Written as **A1:C4** (colon between first and last cell).
Name Box	Box at the left of the formula bar showing the address of the active cell	Can be used to jump to a cell, e.g. type D50 and press Enter.
Formula Bar	Shows the contents (data or formula) of the active cell	Press **F2** to edit the cell directly.

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Term	Meaning	Fact to Remember
Workbook / Worksheet	File / single sheet in the file	Sheet tabs are at the bottom (Sheet1, Sheet2 ...).
Fill Handle	Small square at the bottom-right corner of the active cell	Drag it to copy data or create a series (AutoFill).

Types of data entered in a cell

- **Text (Label)**: letters or a mix of letters and numbers; left-aligned by default.
- **Number (Value)**: digits, dates and times; **right-aligned** by default.
- **Formula**: always begins with the **equal sign (=)**, e.g. =A1+B1. It gives a result that changes when the data changes.
- **Function**: a ready-made formula such as SUM, AVERAGE; e.g. =SUM(A1:A10).

2.3 Formulas and Operators

A **formula** is an expression that calculates a value. It starts with **=** and can contain numbers, cell references, operators and functions. Example: **=B2+C2** adds the contents of B2 and C2.

Type	Operators	Example	Result
Arithmetic	+ - * / ^ %	=10+2*3	16 (multiplication first)
Comparison	= > < >= <= <>	=5>3	TRUE
Text (concatenation)	& (ampersand)	="Poly"&"Notes"	PolyNotes
Range / Reference	: (colon), , (comma), (space)	=SUM(A1:A5)	Adds A1 through A5

Order of calculation (operator precedence): 1) Brackets ( ), 2) Exponent ^, 3) Multiplication * and Division / (left to right), 4) Addition + and Subtraction - (left to right). Example: =(10+2)*3 = 36 but =10+2*3 = 16.

2.4 Cell References

Type	Example	Behaviour when copied to another cell
Relative reference	A1	Changes according to the new position (default type). Copying =A1+B1 from C1 to C2 gives =A2+B2.
Absolute reference	A1	Never changes; both column and row are fixed with the dollar sign ($).
Mixed reference	$A1 or A$1	Only one part is fixed: the column ($A1) or the row (A$1).

Press **F4** after typing a reference to switch between relative, absolute and mixed types. A reference to another sheet is written as **Sheet2!A1**.

2.5 Important Functions

A **function** is a built-in formula. Its general form is **=FUNCTION_NAME(argument1, argument2, ...)**. The values inside the brackets are called **arguments**.

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(a) Mathematical and statistical functions

Function	Purpose	Example	Result
SUM	Adds numbers	=SUM(10,20,30)	60
AVERAGE	Arithmetic mean	=AVERAGE(10,20,30,40)	25
MAX	Largest value	=MAX(5,9,2)	9
MIN	Smallest value	=MIN(5,9,2)	2
COUNT	Counts cells containing **numbers**	=COUNT(A1:A5)	Number of numeric cells
COUNTA	Counts all **non-empty** cells	=COUNTA(A1:A5)	Number of filled cells
COUNTBLANK	Counts empty cells	=COUNTBLANK(A1:A5)	Number of blank cells
PRODUCT	Multiplies numbers	=PRODUCT(2,3,4)	24
ROUND	Rounds to given digits	=ROUND(12.567,1)	12.6
ABS	Absolute (positive) value	=ABS(-15)	15
SQRT	Square root	=SQRT(81)	9
POWER	Raises to a power	=POWER(2,3)	8
MOD	Remainder after division	=MOD(10,3)	1
INT	Integer part (rounds down)	=INT(7.9)	7

(b) Logical and conditional functions

Function	Purpose	Example	Result
IF	Gives one result if condition is TRUE and another if FALSE	=IF(A1>=40,"Pass","Fail") with A1=35	Fail
AND	TRUE only if **all** conditions are true	=AND(5>3,2>1)	TRUE
OR	TRUE if **any** condition is true	=OR(5<3,2>1)	TRUE
NOT	Reverses TRUE/FALSE	=NOT(TRUE)	FALSE
SUMIF	Adds cells that meet a condition	=SUMIF(A1:A5,">50")	Sum of values above 50
COUNTIF	Counts cells that meet a condition	=COUNTIF(A1:A5,"Pass")	Number of 'Pass' cells

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(c) Text functions

Function	Purpose	Example	Result
LEN	Number of characters (spaces included)	=LEN("Kolkata")	7
UPPER	Converts to capital letters	=UPPER("india")	INDIA
LOWER	Converts to small letters	=LOWER("INDIA")	india
PROPER	First letter of each word capital	=PROPER("west bengal")	West Bengal
LEFT	Extracts characters from the left	=LEFT("Computer",3)	Com
RIGHT	Extracts characters from the right	=RIGHT("Computer",3)	ter
MID	Extracts characters from the middle	=MID("Computer",2,3)	omp
TRIM	Removes extra spaces	=TRIM(" Hello ")	Hello
CONCATENATE / CONCAT	Joins text strings	=CONCATENATE("A","B")	AB

(d) Date, time and lookup functions

Function	Purpose	Remark
TODAY()	Returns the current **date**	Updates automatically; no argument needed.
NOW()	Returns current **date and time**	Updates automatically.
DAY / MONTH / YEAR	Extracts the day, month or year from a date	=YEAR(TODAY())
VLOOKUP	Searches the **first column** of a table and returns a value from the same row	V = Vertical. Syntax: =VLOOKUP(value, table, column_number, FALSE)
HLOOKUP	Searches the **first row** of a table and returns a value from the same column	H = Horizontal

AutoSum

AutoSum (symbol Σ in the Home or Formulas tab; shortcut **Alt + =**) inserts the SUM function automatically for the adjacent numbers. Its drop-down also offers Average, Count Numbers, Max and Min.

2.6 Error Values in Excel

Error	Cause
#DIV/0!	A number is divided by zero (or an empty cell).
#NAME?	Excel does not recognise the function name or text in the formula (spelling mistake).
#VALUE!	Wrong type of argument, e.g. adding a number to text.
#REF!	The formula refers to a cell that has been deleted.
#N/A	A value is not available, e.g. VLOOKUP cannot find the lookup value.
#NUM!	Invalid numeric value, e.g. square root of a negative number.
#NULL!	Wrong range operator or two ranges that do not intersect.
#####	Column is too narrow to display the number. Widen the column.

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Exam Facts: MS Excel

- Default extension: **.xlsx**; older: **.xls**. Workbook = file; Worksheet = single sheet.
- Rows: **1,048,576**; Columns: **16,384** (last column **XFD**).
- Every formula starts with **=**. Text is left-aligned, numbers are right-aligned by default.
- **F2** = edit cell, **F4** = toggle $ reference, **F5** = Go To, **F9** = recalculate, **Alt + =** = AutoSum.
- **COUNT** counts only numbers; **COUNTA** counts all non-blank cells.
- **VLOOKUP** looks in the first column; **HLOOKUP** looks in the first row.

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3. MS PowerPoint: Presentation Basics

3.1 What is MS PowerPoint?

MS PowerPoint is a **presentation** program used to create slide shows that combine text, pictures, charts, tables, audio and video. A file created in PowerPoint is called a **presentation** and each page of it is a **slide**. The default extension is **.pptx** (PowerPoint 2007 and later); older versions used **.ppt**.

Extension	Meaning
.pptx	Standard PowerPoint presentation (editable)
.ppt	PowerPoint 97-2003 presentation
.ppsx (.pps)	PowerPoint **Show**: opens directly in slide show mode
.potx (.pot)	PowerPoint **Template**

3.2 Components of the PowerPoint Window

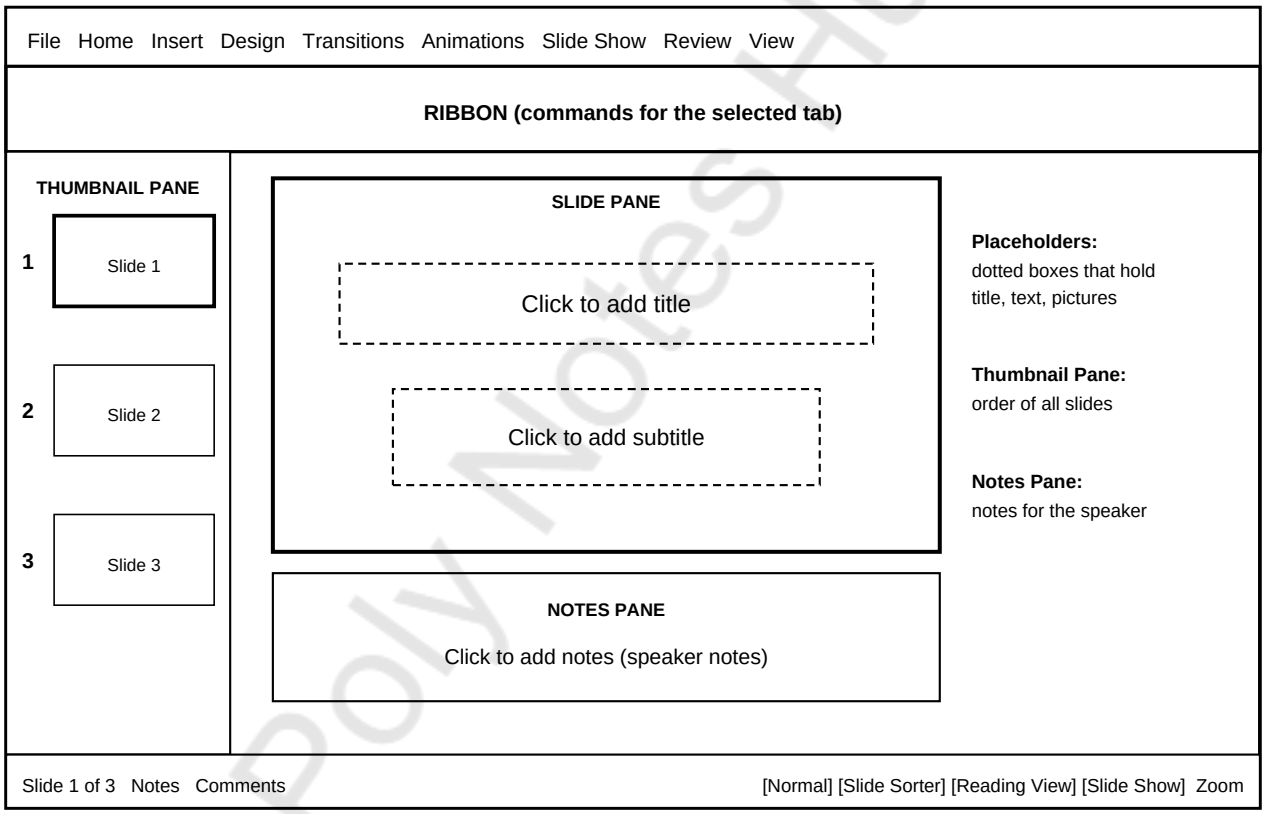


Fig. 3: MS PowerPoint window in Normal view (schematic)

Component	Function
Slide Pane	Main area where the selected slide is created and edited.
Thumbnail Pane	Small pictures of all slides at the left; used to select, move, copy or delete slides.
Notes Pane	Space below the slide to type **speaker notes**; these are not seen by the audience.
Placeholder	Dotted boxes on a slide reserved for title, text, picture, table or chart.
Ribbon	Tabs: File, Home, Insert, Design, Transitions, Animations, Slide Show, Review, View.
Status Bar	Shows slide number, view buttons and zoom slider.

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3.3 Ribbon Tabs of PowerPoint

Tab	Main Use
Home	New Slide, Layout, Reset, Section, Font, Paragraph, Drawing, Find/Replace
Insert	Table, Pictures, Shapes, SmartArt, Chart, Text Box, Header & Footer, WordArt, Hyperlink, Action, Audio, Video, Symbol
Design	Themes, Variants, Slide Size, Format Background
Transitions	Effects applied when one slide changes to the next
Animations	Effects applied to text, pictures or objects on a slide
Slide Show	Start slide show, Set Up Slide Show, Rehearse Timings, Record
Review	Spelling, Comments, Compare, Language
View	Presentation views, Slide Master, Zoom, Ruler, Gridlines, Colour/Grayscale

3.4 Basic Concepts

- **Slide**: a single page of a presentation. **Slide Layout**: arrangement of placeholders (Title Slide, Title and Content, Two Content, Blank etc.). The first slide normally uses the **Title Slide** layout.
- **Theme** (Design Template): a ready set of colours, fonts and effects applied to the entire presentation.
- **Slide Master**: the main slide that controls the fonts, colours, background and layouts of **all** slides. A change made here appears on every slide.
- **Transition**: the visual effect when the slide **changes** (Fade, Push, Wipe). **Animation**: effect applied to an **object** on the slide (Entrance, Emphasis, Exit, Motion Path).
- **Hyperlink** and **Action Button**: allow jumping to another slide, file or website during the show.
- **Handout**: printed copies of slides (1 to 9 slides per page) for the audience. **Notes Page**: slide with its speaker notes.

3.5 Views in PowerPoint

View	Use
Normal View	Default view; has Thumbnail pane, Slide pane and Notes pane. Used for creating and editing slides.
Outline View	Shows only the text of the presentation in outline form.
Slide Sorter View	Shows all slides as thumbnails; used to **rearrange, copy and delete** slides and to set transitions.
Notes Page View	Shows the slide with the notes below it.
Reading View	Shows the presentation in a window with simple controls.
Slide Show View	Shows slides full-screen, exactly as the audience will see them.

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3.6 Shortcut Keys of PowerPoint

Shortcut	Action	Shortcut	Action
F5	Start slide show from the **first** slide	Shift + F5	Start slide show from the **current** slide
Esc	End the slide show	Ctrl + M	Insert a new slide
Ctrl + D	Duplicate selected slide	Ctrl + N	New presentation
N / Enter / Page Down / Right Arrow	Next slide (during show)	P / Page Up / Left Arrow	Previous slide (during show)
B	Black screen (press again to return)	W	White screen (press again to return)
Number + Enter	Go to that slide number	Ctrl + S / P / O	Save / Print / Open

Exam Facts: MS PowerPoint
- Default extension: **.pptx**; show: **.ppsx**; template: **.potx**.
- **F5** = show from start; **Shift+F5** = show from current slide; **Esc** = exit show.
- **Transitions** tab = slide-to-slide effect; **Animations** tab = object effect.
- **Slide Sorter** view is best for rearranging slides. Default view is **Normal**.
- **Ctrl+M** = new slide; **Ctrl+D** = duplicate slide.

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4. Basic Spreadsheet Operations

A spreadsheet is an electronic sheet made of rows and columns in which data can be entered, calculated, sorted, filtered and presented as charts. The following operations are performed in MS Excel, and the same ideas apply to LibreOffice Calc and Google Sheets.

4.1 Entering and Selecting Data

- Click a cell and type the data; press **Enter** (moves down), **Tab** (moves right) or click another cell to confirm. Press **Esc** to cancel the entry.
- To edit a cell, double-click it or press **F2**. To start a new line inside a cell press **Alt + Enter**.
- To enter **today's date** press **Ctrl + ;** and for the **current time** press **Ctrl + Shift + ;**.
- To select a row, click its row number; to select a column, click its letter; to select the whole sheet click the **Select All** button (top-left corner) or press **Ctrl + A**.
- Non-adjacent cells are selected by holding **Ctrl** while clicking; a range is selected by holding **Shift** or by dragging.

Shortcut	Action	Shortcut	Action
Ctrl + Space	Select entire column	Shift + Space	Select entire row
Ctrl + Home	Go to cell A1	Ctrl + End	Go to last used cell
Ctrl + Arrow key	Jump to edge of data region	Ctrl + Shift + Arrow	Select up to edge of data
F5 or Ctrl + G	Go To dialog box	Ctrl + 1	Format Cells dialog box
Shift + F11	Insert a new worksheet	Ctrl + T	Create a table

4.2 Inserting, Deleting and Resizing

- **Insert** a row or column: right-click the row number or column letter and choose **Insert**. A new row appears **above** and a new column appears to the **left** of the selection.
- **Delete** removes the cells, row or column; **Delete key** only clears the contents.
- **Hide / Unhide** rows and columns through the right-click menu.
- Change **row height** and **column width** by dragging the border or double-clicking it (AutoFit).
- Rename a sheet by double-clicking its tab; add a sheet with the **+** button; move or copy a sheet by dragging its tab (hold Ctrl to copy).

4.3 Formatting Cells

Feature	Description
Number Format	General, Number, Currency, Accounting, Date, Time, Percentage, Fraction, Text
Alignment	Left, Center, Right, Top, Middle, Bottom, Indent, Orientation (rotate text)
Merge & Center	Combines selected cells into one and centres the contents (useful for headings).
Wrap Text	Shows long text on several lines inside the same cell.
Borders and Fill	Add lines around cells and background colour.
Format Painter	Copies the format of one cell to other cells.
Conditional Formatting	Changes the look of a cell automatically when a condition is met, e.g. marks below 40 shown in red.

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4.4 AutoFill and Series

AutoFill fills cells automatically by dragging the **fill handle**. It can copy the same value or extend a pattern. For example, typing **Jan** and dragging gives Feb, Mar, Apr; typing **1** and **2**, selecting both and dragging gives 3, 4, 5. Formulas are also copied by AutoFill, and relative references adjust automatically. **Flash Fill** (Ctrl + E) fills data by recognising a pattern, such as separating first names from full names.

4.5 Sorting and Filtering

Operation	Meaning	Details
Sort	Arranges data in a particular order	**Ascending**: A to Z, smallest to largest, oldest to newest. **Descending**: Z to A, largest to smallest. Custom sort can sort on multiple columns. Found on Data tab or Home > Sort & Filter.
Filter	Displays only the rows that meet a condition and **hides** the rest	Shortcut **Ctrl + Shift + L**. Drop-down arrows appear in the header row. The hidden data is not deleted.
Remove Duplicates	Deletes repeated rows	Data tab > Remove Duplicates.
Find & Replace	Searches and replaces data	Ctrl + F (Find), Ctrl + H (Replace).

4.6 Freeze Panes, Split and Protection

- **Freeze Panes** (View tab) keeps selected rows or columns visible while scrolling, e.g. the heading row. Options: Freeze Top Row, Freeze First Column, Freeze Panes.
- **Split** divides the window into separate panes to view different parts of the same sheet.
- **Protect Sheet / Workbook** (Review tab) prevents others from changing the data. A password can be set.
- **Data Validation** (Data tab) restricts what can be typed in a cell, e.g. only whole numbers between 1 and 100, or a drop-down list.
- **Paste Special** pastes only values, formats, formulas or transposes rows into columns.

4.7 Charts

A **chart** is a graphical representation of data. To create a chart, select the data and choose the chart type from the **Insert** tab. Pressing **F11** creates a chart on a separate chart sheet, and **Alt + F1** creates an embedded chart on the same sheet. The horizontal axis is the **X-axis (category axis)** and the vertical axis is the **Y-axis (value axis)**.

Chart Type	Best Used For
Column / Bar	Comparing values between categories (column = vertical bars, bar = horizontal bars)
Line	Showing trends over time
Pie	Showing parts of a whole (percentage share) for **one** data series
Scatter (XY)	Showing the relationship between two numeric variables
Area	Showing the total and change over time

4.8 Printing

- **Print Area** (Page Layout tab) selects the part of the sheet to be printed.
- **Page Break Preview** (View tab) shows where pages will break.
- Orientation, paper size, margins, headers/footers and **Print Titles** (repeat heading rows on every page) are set in the **Page Layout** tab.

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- **Ctrl + P** opens Print and Print Preview.

4.9 Worked Example

Suppose marks are entered as shown in Fig. 2 (Ravi 85, Anita 90, Sam 38) in cells B2:B4. The following formulas give the results shown below.

Task	Formula	Result
Total marks	=SUM(B2:B4)	213
Average marks	=AVERAGE(B2:B4)	71
Highest marks	=MAX(B2:B4)	90
Lowest marks	=MIN(B2:B4)	38
Pass/Fail for Sam (pass mark 40)	=IF(B4>=40,"Pass","Fail")	Fail
Number of students who passed	=COUNTIF(C2:C4,"Pass")	2

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5. Quick Revision Tables

5.1 File Extensions

Application	Document / Workbook / Presentation	Template	Other Common Extensions
MS Word	.docx (old: .doc)	.dotx	.rtf, .txt, .pdf
MS Excel	.xlsx (old: .xls)	.xltx	.xlsm (macro), .csv
MS PowerPoint	.pptx (old: .ppt)	.potx	.ppsx (show), .pdf
MS Access	.accdb (old: .mdb)	.accdt	-

5.2 Common Shortcut Keys (All MS Office Programs)

Shortcut	Function	Shortcut	Function
Ctrl + C	Copy	Ctrl + V	Paste
Ctrl + X	Cut	Ctrl + Z	Undo
Ctrl + Y	Redo / repeat	Ctrl + A	Select all
Ctrl + S	Save	Ctrl + P	Print
Ctrl + N	New file	Ctrl + O	Open file
Ctrl + F	Find	Ctrl + H	Replace
Ctrl + B / I / U	Bold / Italic / Underline	F1	Help
F12	Save As	Alt + F4	Close program
Ctrl + W	Close file	Ctrl + K	Insert hyperlink

5.3 Function Keys at a Glance

Key	Word	Excel	PowerPoint
F1	Help	Help	Help
F2	Move text/graphic	Edit active cell	-
F4	Repeat last action	Toggle absolute/relative reference	Repeat last action
F5	Go To	Go To	Start slide show
F7	Spelling and grammar	Spelling check	Spelling check
F9	Update fields	Recalculate formulas	-
F12	Save As	Save As	Save As

5.4 One-Line Facts for Revision

- MS Office is **application software** developed by **Microsoft**.
- **Word** = word processor; **Excel** = spreadsheet; **PowerPoint** = presentation; **Access** = database; **Outlook** = e-mail.
- Intersection of a row and column = **cell**; first cell of a worksheet = **A1**.
- The Name Box shows the **active cell address**; the Formula Bar shows the **cell contents**.
- Formulas always start with **=**; range is written with a **colon (:)**.

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- Header = top of every page; Footer = bottom of every page.
- Landscape = page wider than tall; Portrait = page taller than wide.
- Ribbon: first introduced in MS Office **2007**; it replaced menus and toolbars.
- Spelling errors are underlined in **red**; grammar errors in **blue/green**.
- **Ctrl + Z** undo; **Ctrl + Y** redo; **Ctrl + S** save; **F12** save as.

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6. Practice Set: 50 MCQs

Instructions: Each question has four options. Choose the one correct answer. Check your answers with the Answer Key given at the end.

Part A: MS Word (Q1 - Q14)

Q1. What is the default file extension of a document created in MS Word 2007 and later versions?

(A) .doc
(B) .docx
(C) .dotx
(D) .txt

Q2. Which shortcut key is used to save a document in MS Word?

(A) Ctrl + S
(B) Ctrl + P
(C) Ctrl + O
(D) Ctrl + N

Q3. Which function key is used to check spelling and grammar in MS Word?

(A) F5
(B) F9
(C) F7
(D) F12

Q4. The bar at the very top of the Word window that displays the file name is called the:

(A) Title Bar
(B) Status Bar
(C) Ruler
(D) Scroll Bar

Q5. Which feature of MS Word is used to copy the formatting of one text and apply it to another?

(A) Clipboard
(B) Thesaurus
(C) Find and Replace
(D) Format Painter

Q6. Mail Merge in MS Word is available in which tab?

(A) Insert
(B) Mailings
(C) Review
(D) References

Q7. Which shortcut key is used to centre-align the selected text in MS Word?

(A) Ctrl + L
(B) Ctrl + E
(C) Ctrl + R
(D) Ctrl + J

Q8. Which shortcut key opens the Replace dialog box in MS Word?

(A) Ctrl + F
(B) Ctrl + R
(C) Ctrl + H
(D) Ctrl + G

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Q9. Which view in MS Word shows the document exactly as it will appear when printed?

(A) Print Layout
(B) Draft
(C) Outline
(D) Web Layout

Q10. Which shortcut key inserts a page break in MS Word?

(A) Ctrl + Enter
(B) Shift + Enter
(C) Alt + Enter
(D) Ctrl + Shift + Enter

Q11. Which shortcut key is used to underline the selected text?

(A) Ctrl + B
(B) Ctrl + U
(C) Ctrl + I
(D) Ctrl + L

Q12. The blank space between the text and the edge of the paper is called:

(A) Indent
(B) Header
(C) Margin
(D) Border

Q13. Text that is repeated at the bottom of every page of a document is called:

(A) Header
(B) Footnote
(C) Footer
(D) Endnote

Q14. Page Number, Table and Pictures can be inserted using which tab of MS Word?

(A) Home
(B) Insert
(C) Layout
(D) View

Part B: MS Excel (Q15 - Q36)

Q15. What is the maximum number of rows in an MS Excel worksheet (Excel 2007 onwards)?

(A) 65,536
(B) 16,384
(C) 256
(D) 1,048,576

Q16. What is the last column of a worksheet in Excel 2007 and later versions?

(A) IV
(B) ZZ
(C) XFF
(D) XFD

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Q17. Every formula in MS Excel must begin with which symbol?

(A) =
(B) @
(C) #
(D) $

Q18. The intersection of a row and a column in a worksheet is called a:

(A) Range
(B) Cell
(C) Table
(D) Field

Q19. What is the address of the cell in the 3rd column and 5th row?

(A) E3
(B) C5
(C) 3E
(D) 5C

Q20. Which function is used to add a group of numbers in Excel?

(A) SUM
(B) ADD
(C) TOTAL
(D) PLUS

Q21. The COUNT function in MS Excel counts:

(A) All non-empty cells
(B) Only text cells
(C) Only the cells that contain numbers
(D) Only blank cells

Q22. Which of the following is an absolute cell reference?

(A) A1
(B) A$1
(C) $A1
(D) A1

Q23. Which function key is used to switch between relative and absolute references while editing a formula?

(A) F2
(B) F4
(C) F7
(D) F11

Q24. What does the formula =MAX(A1:A5) return?

(A) The smallest value in A1 to A5
(B) The average of A1 to A5
(C) The largest value in A1 to A5
(D) The sum of A1 to A5

Q25. Which error value is displayed when a number is divided by zero?

(A) #VALUE!
(B) #DIV/0!
(C) #REF!
(D) #NAME?

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Q26. When does Excel display ##### in a cell?

(A) When the formula is wrong
(B) When a number is divided by zero
(C) When the column is too narrow to display the number
(D) When the cell is empty

Q27. What is the result of the formula =10+2*3 in Excel?

(A) 36
(B) 22
(C) 16
(D) 60

Q28. Which function returns the current system date in Excel?

(A) NOW()
(B) DATE()
(C) DAY()
(D) TODAY()

Q29. VLOOKUP searches for a value in which part of the table?

(A) The first column
(B) The first row
(C) The last column
(D) Any column

Q30. If cell A1 contains 35, what will =IF(A1>=40,"Pass","Fail") return?

(A) Pass
(B) Fail
(C) 35
(D) Error

Q31. Which function is used to count the cells that satisfy a given condition?

(A) SUMIF
(B) COUNTA
(C) COUNTBLANK
(D) COUNTIF

Q32. Which symbol is used to define a range of cells such as A1:A10?

(A) Colon (:)
(B) Semicolon (;)
(C) Comma (,)
(D) Exclamation mark (!)

Q33. What is the result of =AVERAGE(10,20,30,40)?

(A) 20
(B) 30
(C) 100
(D) 25

Q34. What is the default file extension of an MS Excel 2007 (and later) workbook?

(A) .xls
(B) .xlsm
(C) .csv
(D) .xlsx

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Q35. What is the result of =LEN("Kolkata")?

(A) 6
(B) 8
(C) 5
(D) 7

Q36. Which function converts text into capital letters?

(A) UPPER
(B) LOWER
(C) PROPER
(D) TRIM

Part C: MS PowerPoint (Q37 - Q46)

Q37. What is the default file extension of a PowerPoint 2007 (and later) presentation?

(A) .ppt
(B) .ppsx
(C) .potx
(D) .pptx

Q38. A single page of a PowerPoint presentation is called a:

(A) Frame
(B) Slide
(C) Sheet
(D) Panel

Q39. Which key starts a slide show from the first slide in MS PowerPoint?

(A) F1
(B) F5
(C) F7
(D) F11

Q40. What does the Shift + F5 key do in MS PowerPoint?

(A) Starts the slide show from the first slide
(B) Ends the slide show
(C) Prints the presentation
(D) Starts the slide show from the current slide

Q41. The visual effect that appears when one slide changes to the next slide is called:

(A) Transition
(B) Animation
(C) Layout
(D) Theme

Q42. Which tab of PowerPoint is used to apply entrance and exit effects to objects on a slide?

(A) Transitions
(B) Design
(C) Insert
(D) Animations

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Q43. Which shortcut key inserts a new slide in MS PowerPoint?

(A) Ctrl + N
(B) Ctrl + M
(C) Ctrl + D
(D) Ctrl + S

Q44. A PowerPoint file saved with the extension .ppsx opens:

(A) In editing mode only
(B) As a PDF file
(C) Directly in slide show mode
(D) As a text file

Q45. Which PowerPoint view is best for rearranging the order of slides?

(A) Normal View
(B) Reading View
(C) Slide Sorter View
(D) Notes Page View

Q46. The slide that controls the fonts, colours and layouts of all slides in a presentation is the:

(A) Slide Master
(B) Slide Sorter
(C) Notes Page
(D) Reading View

Part D: Spreadsheet Operations (Q47 - Q50)

Q47. The small square at the bottom-right corner of the active cell in Excel, used for AutoFill, is called the:

(A) Fill Handle
(B) Name Box
(C) Cell Pointer
(D) Scroll Box

Q48. Which shortcut key turns the Filter option on or off in MS Excel?

(A) Ctrl + Shift + L
(B) Ctrl + F
(C) Ctrl + Alt + F
(D) Alt + F

Q49. Which Excel feature keeps the heading row visible while scrolling down a large worksheet?

(A) Split Cells
(B) Merge and Center
(C) Freeze Panes
(D) Wrap Text

Q50. Which type of chart is best for showing parts of a whole (percentage share) of a single data series?

(A) Line chart
(B) Scatter chart
(C) Pie chart
(D) Column chart

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Answer Key

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	**B**	11	**B**	21	**C**	31	**D**	41	**A**
2	**A**	12	**C**	22	**D**	32	**A**	42	**D**
3	**C**	13	**C**	23	**B**	33	**D**	43	**B**
4	**A**	14	**B**	24	**C**	34	**D**	44	**C**
5	**D**	15	**D**	25	**B**	35	**D**	45	**C**
6	**B**	16	**D**	26	**C**	36	**A**	46	**A**
7	**B**	17	**A**	27	**C**	37	**D**	47	**A**
8	**C**	18	**B**	28	**D**	38	**B**	48	**A**
9	**A**	19	**B**	29	**A**	39	**B**	49	**C**
10	**A**	20	**A**	30	**B**	40	**D**	50	**C**

Self-evaluation: 45-50 correct = Excellent; 38-44 = Good; 30-37 = Average, revise the tables again; below 30 = read the chapter once more and re-attempt the set.

All the best for your examination!

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