**Microsoft Excel 2021**

**Hands on Sessions**

**Exercise 1:**

1. Start Microsoft Excel
2. Change the Name of the Sheets as follows:
   1. Sheet1 🡪 East
   2. Sheet2 🡪 West
   3. Sheet3 🡪 South
3. Insert a new sheet using Keyboard Shortcut & change the name of this sheet to **North***.*
4. Move North Sheet to place it in Between East & West Worksheets.
5. **Delete North Sheet**.
6. Go to East Sheet of the Workbook using mouse, and go to West Sheet using keyboard, come back to South Sheet using keyboard.
7. Save the Workbook protecting it with password.

**Exercise 2:**

1. Open the file “WorkFile\_01.xls”
2. Go to the cell D90.
3. Go to the beginning of the Worksheet.
4. Go to the last cell of the worksheet, and comeback to the beginning.
5. Go to last column(F) of the current range, using keyboard shortcut.
6. Go to the last Row (53) of the current range, using keyboard shortcut.
7. Select the range A1 to D10 (Using both Mouse & Keyboard).
8. Select the range A1 to F53 (Using both Mouse & Keyboard).
9. Select Column E (Using both Mouse & Keyboard).
10. Select Row 10(Using both Mouse & Keyboard).
11. Select Column A to F (Using both Mouse & Keyboard).
12. Select Column C and Column H.
13. Select the Entire Worksheet (Using both Keyboard & Mouse).

**Exercise 3:**

1. Go to Sheet3 of the current workbook, make cell C4 active.
2. Type the text “UPL” in that cell.
3. Type 682 in Cell C5.
4. Type the date “15-05-2023” in the Cell C6. (Make sure the date format in regional setting is DD/MM/YYYY.
5. Edit the contents of cell C4 to make it “United Phosphorus Limited”.
6. Adjust the column width to fit the above name.
7. Move 2 row down, Using AutoFill feature make the following series:
8. January to December.
9. Sun to Sat.
10. 10, 20, 30, 40………
11. Jan, Apr, Jul, Oct.
12. Using Custom Autofill create the following lists:
13. India, America, England, Australia, Germany, Japan, China.
14. Intel, Infosys, Tata, Reliance, Samsung, Sony.

**Exercise 4:**

1. Insert a new sheet and change the name of the sheet to **“Datahub”.**
2. Go to sheet1 select the range A1 to A53 and copy it to the **“Datahub**” sheet**.**
3. Go to Sheet1 select the contents of **Column A** and move it to **Column P**.
4. Select the range H1 to H53 and copy it to start from A1 in the same sheet.

**Exercise 5:**

1. Insert one column before **Column D** (Using both Mouse & Keyboard)**.**
2. Insert three rows after **Row13**(Using both Mouse & Keyboard).
3. Delete columns D, E, F & G (Using both Mouse & Keyboard)
4. Delete Rows from 13 to 21(Using both Mouse & Keyboard).
5. Clear the contents of **Column E** (Using both Mouse & Keyboard). Save the file.
6. Create a new excel workbook, Save the file by giving it a name of your choice (Save as ##\_##**.xslx** file), Protect the file by assigning it a password.
7. Now copy the sheet named **“Datahub”** from **WorkFile\_01.xls** to the new file which you have created.
8. Save and close all the files.

**Exercise 6:**

1. Open the file “W**orkFile\_02\_Formulas.xls**”.
2. Go to **Sheet2** and do the following Formula’s
   1. = 20+100 in cell A1
   2. = 95-25 in cell A2
   3. = 6\*7 in cell A3
   4. = 8-3\*5 in cell A4
   5. = (8-3) \* 5 in cell A5
   6. = 50 > 20 in cell A6
   7. = 20 < 10 in cell A7
   8. = 70 >= 45 in cell A8
3. Go to **Sheet1 make cell E10** active and calculate the Amount using appropriate formula by using references.
4. Copy the formula from Cell E10 to E13 for calculating amount for other materials.
5. Using **Autosum** feature, find the total amount in cell E14.
6. In cell **E15 & E16 Calculate the CGST & SGST Amount respectively**.
7. Calculate the Grand total by adding **CGST & SGST** to **Total Amount**.
8. Using the keyboard shortcut to display the formula instead of Values, get back the values instead of formula.
9. **Using Auto Calculate** feature find the maximum amount in the amount column of Sheet1.
10. Save & Close file “**WorkFile\_02\_Formula.xls**”.

**Exercise 7 & Exercise 8:**

1. Open the file “**WorkFile\_02\_Formulas.xls**”.
2. Go to **Sheet3** make Cell **G9** active and calculate the discount amount using appropriate formula by using references **(Discount percentage is given in C7).**
3. Copy the **formula from Cell G9 to G12** for calculating Discount for other materials.
4. Find the amount after discount for all items in **column H**.
5. Calculate the Total Amount.
6. Name the Reference H13 as Total\_Amount.
7. Calculate **SGST & CGST Amount and Grand total** (While calculating use reference name Total\_Amount instead of H13 for Total Amount). Save & Close the File
8. Open the file **“WorkFile\_03\_Formulas.xls”.**
9. Refer the sheets **Apr & May** in this workbook, and in Sheet **“Apr-May”** find out the Administration, Social, Education expenses in cell C5, C7 & C9.
10. Go to Sheet “**April”,** select the range **F10 to F41**, copy & paste **only the values** in Sheet **“Apr-May” in column E5**.
11. Save & Close all the files.

**Exercise 9:**

1. Open the file “**WorkFile\_02\_Formulas.xls**”.
2. Go to Sheet3, using **Page Setup** command, change the margin of the sheet to **0.5** **each** for all the sides.
3. Let the **Paper Size** be **A4 and Orientation Landscape.**
4. Using **Page Setup** command, **Center the contents Horizontally as well as Vertically** on page.
5. Using **Header & Footer** Feature do the following:
   1. In the center section of Header type your name.
   2. In the left section of Footer insert sheet name, and in the right section of the Footer, insert page number.
6. Check the view of the print using **Print Preview** command.
7. Print the sheet.
8. Open the file “**WorkFile\_04\_Print\_Customise**”.
9. Make the Sheet **“Year Planner”** active.
10. Using Page setup command, repeat **Column A** in all pages.
11. **Print Page 3** of the current worksheet.
12. Save and close the file.

**Exercise 10:**

1. Open the file “**WorkFile\_04\_Print\_Customise**”.
2. In the Sheet “Year Planner” Freeze the sheet to view, Months (Row 3), and Days (Column A) always when you scroll within worksheet
3. Unfreeze the Panes.
4. View the contents of Column B (i.e., Jul-03) & Column M (i.e., June-04) together.
5. Remove Split.
6. Hide the worksheet.
7. Unhide it now.
8. View Column E of “**MAR – JUNE**” Sheet, & column K of “**Year Planner**”sheet together.
9. Save the Workspace.
10. Close all windows, save the workbook before closing.

**Exercise 11: Mathematical Functions:**

1. Open the file **WorkFile\_05\_Functions.xls**, Goto **Sheet1**.
2. Select the cell H10 and type the formula as given to find **Total Salary** of the Employees
3. Select the Cell H14 and find **Total Salary** given for employees of **Sales Department**.
4. Find **Average Salary** of the employees in the Cell **H11.**
5. Find **Highest Salary** given by the company in the Cell **H17.**
6. Find **Least Salary** given by the company in the Cell H19
7. Find **Count** of Employees who are working in **ACCOUNTS** department, in the cell **H22**.
8. Goto **Sheet 4**, select the **Cell E4**, to find **Amount** which is Product of price and quantity, use function. Copy the **formula to Cell E5, E6.**

**Exercise 12:**

1. In file **WorkFile\_05\_Functions.xls**, Goto **Sheet1**
2. To give additional Allowance for the employees depending upon their Salary (**Using IF & AND function), in Sheet1, select the Cell I2.**
   1. Allowance should be 5000/- If the salary is between 25K to 35K
   2. Allowance should be 7500/- If the salary is above 35K to 45K
   3. Allowance should be 10000/- If the salary above 45K
3. Copy the same function to Cells **I3 to I9** using Fill Handle
4. Save and close the file

**Exercise 13:**

1. Open the file **“Work\_File\_06\_Vlookup.xls”,** Go to Sheet2
2. Using VLOOKUP function, Find the balance amount of the customers listed in **Column A**.

**Exercise 14:**

1. Open the file **“WorkFiles\_07\_Formatting.xls**”
2. Select Column D & Column F, and format the columns to have two decimal places, and currency symbol (Rs.).
3. Select Column A, and format it to have fixed 2 digits.
   * 1. (Ex. ***1*** should be displayed as ***01***)
4. Go to Sheet **“Data”** Select Column D, with heading DOB, and format the contents to DD-MMM-YYY.
5. Save and close the file.

**Exercise 15: Formatting**

1. Open the file “**WorkFile\_07\_Formatting.xls**”, Go to **Sheet1.**
2. **Autofit the columns D & F** so that you can view the data in the columns properly.
3. Change the width of **column B to 40**.
4. **Wrap the contents of column B** so that it fits within the width which you have specified above.
5. Do the following format for the Heading “**Estimation of Construction Work”**
   1. **Merge and Center, within the columns**
   2. **Font 🡪Times new roman**
   3. **Font Size 🡪 18 pt**
   4. **Bold**
   5. **Underline.**
6. Select the **Headings in Row3, Change the Font Size to 12pt, Bold & Center Align**.
7. Select the **Range A4 to A36, Align Center Horizontally and Top Vertically**.
8. Select the **Range B4 to B36, Align Left Horizontally and Top Vertically**.
9. Select Ranges **C4 to C36, D4 to D36, F4 to F36 and align Right Horizontally and Top Vertically.**
10. Select the **Range E4 to E36, Align Left Horizontally and Top Vertically**.
11. Select the **Range A3 to F38, put Outside and Inside border**.
12. Select the **Range A3 to F3, shade the range with Grey color.**
13. Select the **entire worksheet** and **Autofit all the columns**.
14. Select the rows from **Row 3 to Row38** and change the **Row Height to 51**.
15. Select the range **A38 to E38**, **Merge and Centre** the cell contents.
16. Select **Row38, Bold the contents**, **Align Center** Vertically.
17. Go to **Data** sheet**, Hide columns C & D and later unhide it**.
18. Copy the **format from Column D** (with heading DOB) to Column A (with heading REG\_DATE).
19. Save & Close the file.

**Exercise 16:**

1. Open the file “W**orkFile\_08\_Tools.xls**” be in **Sheet1**.
2. Protect the **Cells in Column G** by **Locking it**.
3. **Unprotect the Sheet.**
4. **Protect the workbook** with password to avoid Inserting, Deleting, Copying, Moving, Renaming worksheets.
5. **Remove the Protection** for workbook.
6. **Protect the Workbook** to avoid Restoring, Maximizing, Minimizing & Closing.
7. Remove the Protection.
8. **Save & Close the file**.

**Exercise 17:**

1. Open the file “W**orkFile\_08\_Tools.xls**”, go to Sheet2 and make the cell **E5 active**.
2. Create a **Macro** with the following parameters:
   1. Give an **appropriate name** and **store the Macro** in this workbook.
   2. Give **a Keyboard shortcut (Ctrl + T)** to your macro.
   3. **Number format with thousand separators** and two decimal places.
   4. Align Right Horizontally.
   5. Font 🡪 Times New Roman.
   6. Shade the cell with any light color.
3. Select cells E6:E16 and Run the **Macro using shortcut keys**.
4. Select cells F5:F16 and Run the M**acro using command**.
5. Create a **Tool Button** for the Macro.
6. Select Cell **G5:G16** and Run the **Macro using the Tool button**.
7. Save and close the file as **<file name>.xslm file.**

**Exercise 18:**

1. Open the file “W**orkFile\_08\_Tools.xls**”.
2. Go to **Sheet1**.
3. Using **Goal Seek Command**, Find out what should be the **Length of South side wall** which is in **Cell D9, if the Quantity in cell G9 changes to 128**.
4. **Save and close the file**.

**Exercise 19:**

1. Open the file “**WorkFile\_09\_Sort\_Filter.xls**”, make the cell A4 active.
2. Sort the Data on ascending order of Department.
3. Sort the Data on ascending order of Date Sold and descending order of Value.

**Exercise 20:**

1. Filter the records to view only Household department items.
2. Now show all the records.
3. Filter the records to view Mens department items sold on “03-01-05”.
4. Now show all the records.
5. Filter the records to view the items whose quantity sold is more than 20.
6. Now show all the records.
7. Filter the records to view the items whose description starts with letter S.
8. Now show all the records.
9. Filter the records to view the items whose unit price is in the range of Rs.500 to Rs.1000.
10. Now show all the records.
11. Filter the top five items under the field name **Value**.
12. Now show all the records.
13. Using Advanced Filter feature, copy the records to another location of the sheet, belonging to Toys Department and Unit Price less than Rs.500.
14. **Create a new sheet and move the criteria and filtered records to the newly created sheet.**

**Exercise 21:**

1. Create Department wise **Subtotal for Quantity sold and Value.**
2. Show only Department summary report using **Outline symbols**.
3. **Remove Subtotals**.
4. **Create Date Sold** wise subtotal for quantity sold and value, and give page break between groups.
5. **Remove Subtotals**.
6. **Create Department wise and Date sold wise nested Subtotal**.
7. Show Department and Date Sold Summary report using Outline Symbols.
8. Keeping the above summary, show items wise report only for Household items sold on **03-01-2005.**
9. **Remove Subtotals.**

**Exercise 22:**

1. Create a PivotTable report having the fields in the following layout.

* Row Area - DEPT
* Column Area - DATE SOLD
* Data Area - QTY SOLD & VALUE

1. Using formula option Create a calculated field for calculating Sum of VAT for each department day wise.
   1. (Calculate the VAT value by multiplying Value field by 4%.)
2. Remove Household and toys department from the report.
3. Remove the VAT value from the report.
4. Add the VAT value again to the report.

**Exercise 23:**

1. Open file “**WorkFile\_10\_Charts\_02.xls**”, Being in Stock sheet, **Plot a Column chart** showing the Stocks of all regions (Cities) for all Keyboard Types. Give “Closing Stock Report” as chart title. Specify suitable X-axis and Y-axis titles. Specify Regions (Cities) as labels. Insert the chart in a new sheet.
2. Go to the Sales sheet and plot a **3D Pie chart**, showing the sales of all type of Keyboards in India, give appropriate titles and insert this chart in a new sheet.

**Exercise 24:**

1. Open the file “**WorkFile\_10\_Charts\_01.xls**”.
2. Goto **Sheet1**, select the range **A3:E7**.
3. Plot a Column Chart of Sub Type **3-D Clustered Column**.
4. **Modify the Series** of the Chart to Column.
5. Apply a **Chart Style of your Choice**.
6. Add Chart Title **“Quarterly Income Chart for the Year 2009”**.
7. Add appropriate Axis Titles for the Chart.
8. Change the **Chart Legend Position to Bottom.**

**Exercise 25:**

1. Open the file **“WorkFile\_11\_Consolidate.xls”**.
2. Consolidate the data present in the range **B3:F6** from **Year 1, Year 2 & Year 3** Sheets.
3. Consolidation references should have link to source data.
4. Display the Consolidated data in the same range of the Sheet **Consolidated Final**.
5. Using Outline feature show the detailed information of summarized data.

**Exercise 26:**

1. Open the file **“WorkFile\_12\_Validation.xls”.**
2. Goto **Authors List** worksheet, create a Range name for Column **Authors**.
3. Using Data Validation Feature, Create a Validation List for the Column B (Author).
4. Use the Range Name **Authors** as List Source for Validation List.
5. Apply Data Validation for the Column **Price** with following Criteria.
   * 1. Decimal Numbers allowed.
     2. Numbers Should be in the range 1.0 to 100.0
6. Column Pages should be validated to allow only numbers greater than 5.

**Exercise 27:**

**Import Text Files**

1. Open a New Blank workbook.
2. Using Get External Data feature, import the Text file **“Publishers.txt”** to Sheet1 by keeping following factors in mind.
   * 1. Fields are delimited by Comma.
     2. Column Data Format is General.
     3. Do not import the Last Column (Fax).

**Import Access Database**

1. Open a New Blank workbook.
2. Using Get External Data feature, Open the file **“eStaff.mdb”** and import the table Employee to Sheet1.
3. Convert the Table to Range.

**Exercise 28:**

1. Open a New Work Book.
2. Using **Data -> From** Other Sources Command with the help of Microsoft Query open the Access Database **“eStaff.mdb”**.
3. Select the **Employee Table** and make sure to have all columns of the Table.
4. Filter the data so that only the records of employee with **Job Code = 3** are present.
5. **Sort the Data on the column “First Name**”.

**Exercise 29:**

1. Open a New Work Book.
2. Using Data->From Other Sources Command import the XML file “Products.xml” located in the folder “Imports” to $A$1 reference of your current worksheet.
3. Goto last row of the imported data, insert two new records given below.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 78 | Lakkalikoori | 45 | 1 | 500 ml | 18 | 57 | 0 | 20 | 0 |
| 79 | Mishi Kobe Niku | 34 | 2 | 12 boxes | 13 | 32 | 0 | 15 | 0 |

1. Save the file by giving the name NewProducts.xml.