Lab Manual

**ACADEMIC YEAR: 2025-26** 

### Practical-1: Prepare a Document with Proper Format using MS Word

### 1. Prepare a new document and set page layouts and styles

- 1. Create a new Word file, set paper size to A4, orientation landscape and margins normal/narrow in from Layout Menu.
- 2. Go to File menu, learn properties and set author information, title, tags, comments, and save file with Practical\_1\_RollNo(Task\_Name).docx Ex.(Practical\_1\_101(Formatting).docx).
- 3. Create a document of four pages. Each page should have one title, one main topic, three subtopics, with some demo text in each
- 4. Apply title style to each title, heading 1 style to each main topic, heading 2 style to each subtopic and normal style to each text.
- 5. Inserting a screenshot of Darshan University's Home Page in a document.
- 6. Modify styles, change font type, colour, size, alignment, line spacing, etc.

### 2. Prepare a document with paragraphs and formatting properties

- 7. Apply paragraph properties, such as aligning text, bullets and numbering, indent, sorting, shading, line, and paragraph spacing, and show/hide paragraph marks.
- 8. Apply clipboard properties, copy and paste and format painter.
- 9. Apply font properties: set font type, size, bold, italic, underline, and strike through, superscript, subscript, highlight text, and change case.
- 10. Apply editing properties, find, replace and select.
- 11. Learn to protect documents and manage documents.
- 12. Add Your Name, Roll Number and Class Name with right alignment at the end of the last page.

### 3. Prepare a document with a Table of Contents

- 13. Create an automatic table of contents.
- 14. Save the doc file and convert the file into PDF format also.

## Practical-2: Prepare the time table of Your Division Using Table Properties in MS Word

- 1. Prepare the time table for your division using the table.
  - 1. Ensure the table includes rows and columns for days of the week, time slots, and subjects.
  - 2. Perform the cell merge, cell split, and cell/row/column insert/delete.

## 2. Apply table design properties, shading, table borders, table layout properties, row, column heights, text alignment, text direction and cell margins.

- 3. Apply the following properties to your created time table.
- 4. Shading: Apply background colors to specific rows or columns to differentiate between different sections (e.g., weekdays vs. weekends).
- 5. Table Borders: Adjust the border style, thickness, and color of your table to improve its better view.
- 6. Row and Column Heights: Modify the height of rows and width of columns to fit your content appropriately.
- 7. Text Alignment: Align the text within each cell (left, center, or right) based on the content.
- 8. Text Direction: Change the text direction within cells if necessary (e.g., vertical text for time slots).

**Lab Manual** 

**ACADEMIC YEAR: 2025-26** 

9. Cell Margins: Adjust the cell margins to control the spacing around the text within each cell.

### 3. Prepare your HSC Marksheet using a table and use formulas for Sum and Percentage.

- 10. Include columns for subject name, subject code, theory marks, practical marks, total marks obtained, maximum marks, and any other relevant information.
- 11. Use formulas to calculate the total marks and the percentage.
  - Sum Formula: Calculate the total marks obtained by summing the marks of all subjects.
  - Percentage Formula: Calculate the percentage by dividing the total marks by the maximum possible marks and multiplying by 100.
  - Apply the table design and layout properties properly as per your table content.

### Practical-3: Learning Header, Footer and Page Number in MS Word

- 1. Prepare a document of 2 or more sections (Units).
  - 1. Prepare a document that contains 3 sections, each section contains a minimum of 2 pages.
  - 2. Add proper content to the document with proper formatting.
  - 3. Insert the index reference table in the document.
- 2. Inserting Header, footer and page number in the document.
  - 4. Insert a header that contains Name of the Unit on the top right of the page.
  - 5. Insert a footer that contains Student Name (Roll No) on the left side, on center contains Subject Name (Code), and the bottom right side contains Page number.
  - 6. Insert Darshan University logo as watermark.
  - 7. 1st page (reference table page) does not contain a header, footer or page number.
- 3. Apply section-wise header and footer.
  - 8. Add section-wise header and footer.
  - 9. The header part contains the Unit Name as per the section, Footer part contains the continuation page numbers.
  - 10. Count the number of words and characters in your document.

# Practical-4: Working with equations and symbols & Prepare Column, Line, and Pie chart using appropriate data in MS Word

- 1. Working with equations and symbols, and charts.
  - 1. Prepare a Solution of Math Tutorial of 2 pages.
  - 2. Inserting Date, time and objects in the document.
  - 3. Inserting line, column and pie charts in a document.
- 2. Prepare a Column, Line, and Pie chart using appropriate data.
  - 4. Prepare a Result analysis of 10 students in a chart.
  - 5. Use Different Properties of the chart like Change Chart Design, Change Chart Layout, Add Chart Title, and Change Data Values.
  - 6. Use symbols in the document.
- 3. Create smart art and use the mathematical equation tab.

Lab Manual

**ACADEMIC YEAR: 2025-26** 

- 7. Inserting SmartArt in a document. Prepare one topic of classification.
- 8. Use the Equation Tab to write Mathematical or scientific equations.

## Practical-5: Prepare a letter using Mail Merge in MS Word

- 1. Prepare Master Letter or Master Card as per your requirement.
  - 1. Prepare a master letter.

### For example,

To, {First Name} {Last Name} {City}, {State}, {Pin Code}. {Email Address}

Dear {FirstName},

We are pleased to invite you to our annual conference held at {Location} on {Date}. We hope to see you there!

Sincerely! {Your Name}

- 2. Prepare a Data sheet or database of 7 people (recipients) for the above letter data.
- 3. Create letters using mail merge.
- 2. Prepare a certificate using mail merge.
  - 4. Prepare a certificate for 5 students for a different event held during sports day celebration.
  - 5. The certificate must have a color, text and proper formatting.

#### Practical-6: Perform advanced task on MS Word

- 1. Prepare a document using RAND function.
  - 1. Prepare a document consisting of 10 paragraphs using the =RAND() function in Microsoft Word, structured as follows: the first 3 paragraphs should each contain 5 lines, the next 3 paragraphs should each contain 8 lines, and the remaining 4 paragraphs should each contain 10 lines.
- 2. Prepare a table that contains the marks of 10 students across 10 different subjects. Each row should represent a student, and each column should represent a subject. Perform the following functions:
  - 1. SUM(ABOVE)
  - 2. AVERAGE(ABOVE)
  - PRODUCT(LEFT)
  - 4. MAX(LEFT)
  - 5. MIN(LEFT)
  - 6. COUNT(ABOVE)

Lab Manual

**ACADEMIC YEAR: 2025-26** 

#### 7. CARDTEXT

- 3. Prepare your resume which includes the following information in a clear and organized format. Once completed, save the file as a PDF using your enrollment number as the file name:
  - 1. Full Name
  - 2. Contact Information
    - Mobile Number
    - Email Address
    - Residential Address
  - 3. Career Objective
    - A brief statement summarizing your professional goals.
  - 4. Educational Qualifications (In table format)
    - Degree
    - Institution Name
    - Board/University
    - · Year of Passing
    - Percentage/CGPA
  - 5. Technical Skills
    - Programming Languages
    - Tools/Software
    - Other relevant skills
  - 6. Project Details
    - Project Title
    - Description
    - · Technologies Used
  - 7. Achievements & Certifications
    - Academic or extracurricular achievements
    - Online certifications or workshops
  - 8. Co-curricular / Extra-curricular Activities
    - Events, competitions, volunteering, etc.
  - 9. Strengths and Weaknesses
    - Personal qualities and areas of improvement
  - 10. Languages Known
    - List of languages you can read, write, or speak
  - 11. Personal Details
    - Date of Birth
    - Gender
    - Nationality
    - Marital Status

Lab Manual

**ACADEMIC YEAR: 2025-26** 

#### 12. Declaration

- A statement that all information provided is true to the best of your knowledge
- Place and Date
- Signature (if submitting in print)

## Practical-7: Prepare an Excel sheet with page layout and headers, manage columns, and data validation in MS Excel

### 1. Create the MID examination result of 15 Students of 5 Subjects.

- Create a table to record the MID examination results of 15 students across 5 subjects
- The table should have the following columns: (Student Name, Subject 1, Subject 2, Subject 3, Subject 4, Age)
- Enter data for 15 students (you can use random names and marks)
- Then Adjust Column Width
- Type Text and Numbers
- Undo (Ctrl + Z) and Redo (Ctrl + Y) while entering the data as per needed
- Insert a new row that contains "Darshan University" in 1st row and the left side column that contains
  Roll No.in 1st column
- Delete Rows last row and delete the Age Column
- Text in left alignment and Number Alignment in centre
- Format Fonts
- Format Numbers
- Cut, Copy, and Paste Text, Convert into PDF format, Print Spreadsheet

#### 2. Apply Excel shortcuts.

- Insert one sheet in the same file and name 'Excel\_Shortcuts'.
- Make a sheet for Excel shortcut, one column contains the shortcut key name, and the second column contains the description.
- Practice and remember the given excel shortcut keys:
  - Ctrl + C (Copy)
  - Ctrl + V (Paste)
  - Ctrl + S (Save)
  - Ctrl + P (Print)
  - Ctrl + Z (Undo)
  - F2 (Edits the active cell, putting the cursor at the end)
  - Alt + Shift + F1 (Inserts a new worksheet (before the active sheet))
  - Ctrl + D (Copies the first cell in the selection downwards)
  - Ctrl + F (Displays the Find dialog box)
  - Ctrl + G (Displays the Go To dialog box)
  - Ctrl + H (Displays the Replace dialog box)
  - Ctrl + W (Closes the active workbook or window)

**Lab Manual** 

**ACADEMIC YEAR: 2025-26** 

- Shift + Enter (moves to the cell above (by default))
- Alt + Enter (Enters a new line into a current cell)
- Ctrl + Spacebar (Selects the current column)
- Shift + Spacebar (Selects the current row)
- Ctrl + Shift + Arrow Key (Extends the selection to the next cell adjacent to a blank cell in that direction)

### 3. Apply data validation.

- In the subject columns, apply data validation to ensure that the marks entered are between 33 and 100

### 4. Sort Data, AutoFilter, Custom Filter.

- Sort the students by their names alphabetically
- Filter the data to display only students who scored more than 80 in a particular subject
- Apply a custom filter to display students who scored between 50 and 70 in any two subjects

Save your Excel file with the name: "MID\_Examination\_Results\_YourName.xlsx"

## **Practical-8: Working with MS Excel formulas**

- 1. Prepare the Final examination results of 15 students. Do Adjust column width, Type Text and Numbers, Undo and Redo, Insert and Delete Rows and Columns, Text and Number Alignment, Format Fonts, Format Numbers, Cut, Copy, and Paste Text, Print Spreadsheet.
  - Create a table to record the MID examination results of 15 students across 5 subjects.
  - The table should have the following columns: (Student ErNo., Student Name, Student Age, Subject 1, Subject 2, Subject 3, Subject 4, Total, Percentage, Grade)
  - Input the data for 15 students under the respective columns
  - **Note:** Name contains First name and last name (You can use previous practical data).
  - Adjust Column Widths to ensure all data is visible.
  - Format the fonts (e.g., bold for headers, set font size to 12).
  - Align Name and Er No left aligns; Marks centre and Grade Right align.
  - Insert a new row above the headers and enter the title "Final Examination Results." In center aligns.
  - Practice Cut, Copy, Paste and print view as required.

### - Apply Basic Formulas:

- Use Sum formula for Total column using SUM Formula.
- o Find the average of each student's marks using the AVG formula.
- o Find percentage of each student using formula.
- Find minimum and maximum marks of each student and for each subject using MAX and MIN formula.
- Count total number of students using COUNT formula.
- o Convert Student Name in uppercase and lowercase using UPPER and LOWER formulas.
- Freeze Panes, Auto Format, Page Setup, Page Breaks, repeat rows and columns, Find and Replace,
  Inserting Images, Text to columns.

Lab Manual

**ACADEMIC YEAR: 2025-26** 

- o Insert Header and footer in excel in header insert Left side DU logo and in right side write Darshan University. In footer add page number.
- Use Page setup to repeat 1<sup>st</sup> row in every page.
- Freeze 1<sup>st</sup> row while scrolling.
- Use Text to Columns to separate the student names into first and last names if needed.

### 2. Intermediate Formulas Use formulas Countif, Concatenate, Trim, and Proper.

- Count the number of students who scored above a certain threshold using the "COUNTIF" formula.
- Concatenate the first name and last name of students using the "CONCATENATE" formula.
- Trim extra spaces from the student names using the "TRIM" formula.
- Format the student names properly using the "PROPER" formula to capitalize the first letter of each word.
- **3. Perform Vlookup** (Prepare two different excels. First excel has columns Student RNo, Student Name, Student Age and second excel has columns Student RNo, Subject 1, Subject 2, Subject 3, Subject 4, Total, Percentage, Grade. Retrieve all subjects mark from second excel to first excel using Vlookup).
- 4. **Perform hlookup** (Prepare two different excel with proper data)

## Practical-9: Prepare Column, Line and Pie charts and pivot tables using appropriate data in MS Excel

- 1. Enter data (Minimum 50 entries) and create a chart of that data. Change Chart Design, Change Chart Layout, Add Chart Title, Change Data Values.
  - Open a new MS Excel spreadsheet.
  - Enter a dataset with at least 50 entries. Ensure that your dataset includes at least one column with numerical values (e.g., sales, quantities) and another with categorical data (e.g., product names, regions).
  - Column Name, Age, Department, Salary, Experience, Sales, etc.
  - Create a Column and line chart.
  - Add chart elements (e.g., Chart titles, axis, legend, Data labels, etc.) as per proper data formatting.
  - Change chart layout.
  - Change chart design.
  - Modify the chart data from the sheet.

#### 2. Create a Pie Chart, Print Chart.

- Select the data for the Pie chart and customize the Pie chart.
- Change the Chart Design and Layout similar to above.
- Convert into PDF for proper print format.

#### 3. Prepare Pivot Tables.

- Select Data range.
- In the Create PivotTable dialog box, choose where you want the PivotTable report to be placed (either a new worksheet or an existing worksheet).
- Creating Different Pivot Tables:

**Lab Manual** 

**ACADEMIC YEAR: 2025-26** 

- Pivot Table 1: Summarize sales by region.
  - Drag the Region field to the Rows area.
  - o Drag the Sales field to the Values area.
- Pivot Table 2: Summarize sales by product.
  - Drag the Product field to the Rows area.
  - Drag the Sales field to the Values area.
- Pivot Table 3: Summarize sales by product and region.
  - Drag the Product field to the Rows area.
  - Drag the Region field to the Columns area.
  - Drag the Sales field to the Values area.

#### 4. Practice below functions.

- Create a separate file as per functions below and apply all the functions.
- How many employees are in a list?
- How many employees work in the finance department?
- How many employees of salary of marketing department employees?
- Give the Grade to the employee as per sales -> if sales 0-200 then "Poor", if sales 201-500 then "Average", if sales 501-800 then "Good", if sales 801-1000 then "Distinctions".
- Count how many employees having experience of less than 8 years?

Save your Excel file with the name: "YourName\_Excel"

## Practical-10: Prepare Column, Line and Pie charts and pivot tables using appropriate data in MS Excel

- 1. Enter data (Minimum 15 entries) and perform conditional formatting, text to column, remove duplicate and data validation.
  - Create a table to record the MID examination results of 15 students across 5 subjects.
  - The table should have the following columns: (Student ErNo., Student Name, Student Age, Subject 1, Subject 2, Subject 3, Subject 4, Total, Percentage, Grade).
  - Highlight cells based on the marks using conditional formatting (i.e., more than 75 then green, 50 to 75 then blues and less than 50 then red)
  - Divide the student name column into two columns as first name and last name using text to column.
  - Remove duplicate first names.
  - Add new column as CGPA with validation such that value must be between 0 and 10.
  - Add new column as Department with validation such that value must be CE, IT or ICT.
  - Filter the data based on colour.
  - Sort the data on Percentage in descending order, if two student has same percentage then next should be on Subject 1 in ascending and then Student ErNo in ascending order.

### Practical-11: Perform advanced task on MS Excel

1. Create dynamic Dashboard using Pivot Tables, Slicers, Charts, and Conditional Formatting

**Lab Manual** 

**ACADEMIC YEAR: 2025-26** 

- 2. Perform Xlookup and INDEX and MATCH function
- 3. Perform Goal Seek function
- 4. Implement Cascade Drop-down/Dependent Drop-down (Two Drop-down one depending on another)
- 5. Perform autofit cells using simple MACRO
- 6. Perform auto border to cells using conditional formatting
- 7. Create dynamic calendar
- 8. Create attendance system

### Practical-12: Prepare a PowerPoint presentation using the slide master concept.

- 1. Prepare a PowerPoint presentation on one topic (15 slides). Design Theme, Add Text, Add New Slide, View Modes, Edit Bulleted List, Add Clip Art, Create Shapes, Replace Font, Format Text, Change Bullets, Add Footer.
  - Create a PowerPoint presentation on a topic of your choice with 15 slides.
  - Note: The topic must be Study-related.
  - Set the Theme.
  - Add Text
    - On the first slide, add a title and a subtitle.
    - Use the Home tab to adjust the font size, colour, and style.
    - o Format text as bold, italic, underlined, or highlighted as per your topic.
  - Add New Slide
    - Select an appropriate layout for each slide.
  - View Modes
    - Explore different view modes: Normal, Slide Sorter, and Reading View.
  - Edit Bulleted List
    - Add a slide with a bulleted list.
    - Adjust the list levels using the Increase/Decrease Indent buttons.
  - Add Clip Art
    - o Insert Pictures, icons, and shapes for proper understanding.
    - Modify and format shapes or pictures.
  - Add Footer
  - Insert Header & Footer.
    - Add footers to your slides, including the date and slide number.
- 2. Slide Transition, Text Animation. Launch Slide Show, Navigation Slide Show.
  - Enhance your presentation with slide transitions and text animations.
  - Slide Transition
    - Apply a transition to each slide.
    - Adjust the transition duration and effect options.
  - Text Animation
    - Go to the Animations tab and choose an animation effect.

**Lab Manual** 

**ACADEMIC YEAR: 2025-26** 

- Use the Animation Pane to adjust the sequence and timing.
- Launch Slide Show
- Navigation Slide Show
  - o Practice navigating through slides using the arrow keys and mouse.
  - Try using the Slide Show toolbar for navigation.

#### 3. Edit Slide Master.

- Edit the Slide Master to ensure uniformity and ease of updates.
- Make changes to the master slide, such as font style, background, and placeholders.
- Add a logo or any other repeating element.
- Create custom layouts in the Slide Master for specific types of slides.
- Add or modify content on individual slides that aligns with the master design.

Save your presentation with the Name "PPT\_Roll\_No\_TopicName.pptx".

## Practical-13: Prepare a Presentation on Result analysis of your previous semester.

- 1. Prepare a presentation on Result analysis of the previous semester of your division. Use charts for student-wise analysis subject subject-wise analysis.
  - Prepare a presentation analyzing the results of the previous semester for your division.
    - Charts: Include student-wise and subject-wise analysis.
  - Modify the presentation with the following:
    - Change chart design and layout.
    - Add a chart title.
    - Enhance the presentation using SmartArt and slide master.
  - Task 1: Student-wise Analysis
    - Collect the marks/grades of each student for all subjects.
    - Use a bar chart or line chart to represent the data.
  - Task 2: Subject-wise Analysis
    - Calculate the average marks/grades for each subject.
    - Use a pie chart or column chart to represent the data.

### 2. Change Chart Design, Change Chart Layout, Add Chart Title.

- Choose a different chart design and animation from the chart tools menu.
- Choose a different chart layout from the chart tools menu.

#### 3. Use Smart Art and Slide Master.

- Visually represent information using SmartArt.
  - Add Animation to the SmartArt.
- Use Slide Master
  - Modify the slide master to create a consistent design and layout for all slides
  - Add hierarchical multilevel bullets.

Save the Presentation with the name "PPT\_Analysis\_RollNo".

### Practical-14: Perform advanced task on MS Power Point

Lab Manual

**ACADEMIC YEAR: 2025-26** 

## 1. Prepare a presentation using slide master concept and give animation and transition: (Take data from www.darshan.ac.in)

- 1. About University (About Darshan University and Our Motto)
- 2. Administrative Leadership (Dr. Ramnik G. Dhamsaniya and Prof. Manish V. Sanghani) with photos
- 3. Academic Leadership
- 4. University Authority (BoS Mechanical Engineering) Give animation row wise
- 5. Programs Offered (Admission 2025 and Diploma Engineering (After 10th))
- 6. Why Darshan University?
- 7. Scholarships (MYSY and Scholarships for SC/ST Students) Put hyperlink
- 8. Prepare column chart of Computer department's last 3 year placement records. (*Take date from www.darshan.ac.in*) and give animation.
- 9. Prepare pie chart of Computer department's last 2024 year placement records. (*Take date from www.darshan.ac.in*) and give animation.
- 10. Placement Summary (2025 and Branch wise Summary) Put hyperlink and give animation row wise
- 11. Add footer as slide number and subject code with name using slide master.
- 12. Add Title slide which contains your enrollmentno, name, department, semester, and subject.

### Practical-15: Perform advanced task on MS Power Point

- 1. Create your own Template or Theme
- 2. Create animated infographics
- 3. Apply Trigger Animations