



AL-KAWTHAR

U N I V E R S I T Y

Department of Computer Science

GE 113 L – Information and Communication Technology Skills (ICTs)

Lab # 09

Objective:

To teach students how to create a marks sheet with automated calculations for total marks, percentage, and grades using conditional functions.

| | |
|-----------------------|--|
| Name of Student | |
| Student ID | |
| Date of Lab Conducted | |
| Marks Obtained | |
| Remarks | |
| Signature | |

Student Name: _____

Roll No: _____

Section: _____

Lab 09: Automated Calculations using MS Excel 2016

Lab Activity 1: Setting Up a Marks Sheet

Objective: Organize student marks data in a structured table.

Activities:

1. Open a new Excel workbook.
2. Define column headers: Roll Number, Name, Subject 1, Subject 2, Subject 3, Subject 4, Subject 5, Total, Percentage, Grade.
3. Enter sample student data, ensuring each subject has a maximum of 40 marks.
4. Save the workbook.

Lab Activity 2: Calculating Total Marks and Percentage

Objective: Use formulas to calculate total marks and percentage automatically.

Activities:

1. In the Total column, use `=SUM(C2:G2)` (assuming C2:G2 contains subject marks).
2. In the Percentage column, use `=(H2/200)*100` (assuming H2 contains the total marks out of 200).
3. Use the fill handle to apply formulas to other rows.
4. Format percentage values to show up to two decimal places.
5. Save the file.

Lab Activity 3: Assigning Grades Using IF Function

Objective: Implement conditional logic to assign letter grades.

Activities:

1. In the Grade column, use the following IF function:
`=IF(I2<50,"F",IF(I2<60,"E",IF(I2<70,"D",IF(I2<80,"C",IF(I2<90,"B","A"))))`
2. Press Enter and use the fill handle to apply it to other rows.
3. Apply conditional formatting to highlight failing students in red.
4. Save and close the file.

Student Name: _____

Roll No: _____

Section: _____

Learning Outcomes

Upon completion of this lab, you will be able to:

- Design a marks sheet with structured student data.
- Apply formulas to compute total marks and percentages.
- Use logical functions to categorize student performance.
- Enhance data presentation through formatting techniques.

LAB Assignment

Objective: Create a marks sheet for a class of 10 students with at least 5 subjects. Calculate total marks, percentage, and assign grades using Excel functions. Format the sheet professionally and apply conditional formatting to highlight distinctions and failures.

Instructions:

1. Open a new workbook and create a marks sheet.
2. Enter 10 sample student data with marks for five subjects.
3. Maximum Marks for each subject is 40.
4. Use formulas to calculate total marks and percentage.
5. Implement the grading system using the IF function.
6. Format and save the file before submission.