Question Paper

Subject: Data Analysis Using MS Excel (Unit I)
Max Marks: 10
Time: 45 Minutes

Section A

(Each question carries 0.5 mark – 6 × 0.5 = 3 Marks)

Q.1 Multiple Choice Questions

i. In Excel, the intersection of a row and a column is called:
a) Cell
b) Range
c) Address
d) Field

ii. Which of the following is an **absolute cell reference**?
a) A1
b) A1
c) A$1
d) $A1

iii. Which file extension is **not supported** by Excel for import/export?
a) .csv
b) .txt
c) .exe
d) .xlsx

iv. The logical function that returns TRUE only if **all conditions are true** is:
a) OR
b) AND
c) NOT
d) IF

v. Conditional formatting in Excel is used for:
a) Changing the layout of worksheet
b) Automatically formatting cells based on rules
c) Protecting worksheet data
d) Inserting charts

vi. Which feature is used to split a column of full names into “First Name” and “Last Name”?
a) Data Validation
b) Conditional Formatting
c) Text-to-Columns
d) Sort & Filter

Section A

(Each question carries 1 mark – 3 × 1 = 3 Marks)

Q.2 Short Answer Type Questions

a) Differentiate between **Relative**, **Absolute**, and **Mixed** cell referencing with examples.

b) **Goal Seek** in Excel is a tool for:

c) What is the use of **Data Validation** in Excel? Give one practical example.

Section B

(Each question carries 2 marks – 2 × 2 = 4 Marks)

Q.3 Descriptive Answer Type Questions

a) Explain the steps to **import a CSV file into Excel** and perform sorting on one column.

b) What is **Conditional Formatting**? Explain with an example how it can be used for decision-making (e.g., highlighting sales less than a target).

Section A

(Each question carries 0.5 mark – 6 × 0.5 = 3 Marks)

Q.1 Multiple Choice Questions

i. The function used to count cells that meet multiple criteria is:
a) COUNT
b) COUNTIF
c) COUNTIFS
d) COUNTA

ii. Which of the following returns the **first few characters** from a text string?
a) RIGHT
b) LEFT
c) MID
d) CONCATENATE

iii. The function that gives the **difference between two dates in years, months, or days** is:
a) TODAY
b) NETWORKDAYS
c) DATEDIF
d) NOW

iv. Which function is considered the **replacement for VLOOKUP** in modern Excel?
a) HLOOKUP
b) INDEX
c) MATCH
d) XLOOKUP

v. **Goal Seek** in Excel is a tool for:
a) Finding multiple solutions at once

b) Changing inputs to achieve a desired output
c) Comparing different scenarios
d) Data validation

vi. In a **two-variable data table**, the results are calculated based on:
a) One formula and one variable
b) Two formulas and two variables
c) One formula and two variables
d) Multiple formulas and multiple variables

Section A

(Each question carries 1 mark – 3 × 1 = 3 Marks)

Q.2 Short Answer Type Questions

a) Differentiate between **VLOOKUP** and **INDEX-MATCH**.

b) Write a formula to extract the middle 5 characters from the text in cell A1.

c) What is the purpose of the **NETWORKDAYS** function? Give an example.

Section B

(Each question carries 2 marks – 2 × 2 = 4 Marks)

Q.3 Descriptive Answer Type Questions

a) Explain the steps to use **Goal Seek** with an example (e.g., finding the sales required to reach a profit target).

b) What is **Scenario Manager**? Describe with an example how it can be used for decision-making.

✅ **Total Marks: 10**

End Semester Examination – Dec/Jan 2025

B.Voc. | Subject: Data Analysis Using MS Excel
Max Marks: 35

Section A – MCQs (5 × 1 = 5 Marks)

(Attempt all questions)

1. Which of the following is NOT a type of cell reference in Excel?
   a) Relative
   b) Absolute
   c) Mixed
   d) Dynamic
2. Which function is used to count cells based on a given condition?
   a) SUM
   b) COUNTIF
   c) TEXTJOIN
   d) TODAY
3. Goal Seek is used to:
   a) Remove duplicates
   b) Find input value to reach a desired result
   c) Create charts
   d) Apply conditional formatting
4. Which chart is best for showing data composition?
   a) Line chart
   b) Pie chart
   c) Column chart
   d) Histogram
5. IFERROR function is used to:
   a) Check for blanks
   b) Remove texts
   c) Handle errors in formulas
   d) Create drop-down lists

Section A – Q2: Short Answer Type (5 × 2 = 10 Marks)

(Attempt any five)

1. Define Relative, Absolute, and Mixed cell referencing with examples.
2. Explain sorting and filtering of data with a suitable example.
3. Write the syntax and example of IF and AND functions.

4. What is Conditional Formatting? Give two uses.
5. Explain VLOOKUP with a simple example.
6. What is Data Validation? How is a drop-down list created?
7. Explain the purpose of PivotTables.
8. Write short notes on LEFT, RIGHT, and MID functions.

Section B – Descriptive Answer Type (4 × 5 = 20 Marks)

(Attempt any four)

1. Explain various data cleaning techniques in Excel: removing duplicates, text-to-columns, and formatting data.
2. Describe SUMIF, COUNTIF, and DATE functions (TODAY, DATEDIF) with examples.
3. Explain in detail: INDEX-MATCH, INDIRECT, and OFFSET with suitable examples.
4. What-If Analysis: Explain Goal Seek, Data Tables, and Scenario Manager with examples.
5. Discuss different types of charts in Excel. Explain how to design effective data visualizations.
6. Explain the process of creating dynamic dashboards using tables, named ranges, and drop-down lists.
7. Write detailed notes on case studies: Sales Forecasting and Inventory Management using Excel tools.
8. Describe the steps of an Excel-based mini-project—from data collection to report preparation.

MCQ Answer Key (5 × 1 = 5 Marks)

1. **d) Dynamic**
2. **b) COUNTIF**
3. **b) Find input value to reach a desired result**
4. **b) Pie chart**
5. **c) Handle errors in formulas**

End Semester Examination – Dec/Jan 2025

B.Voc. | Subject: Data Analysis Using MS Excel
Question Paper – Set B
Maximum Marks: 35

Section A – MCQs (5 × 1 = 5 Marks)

(Attempt all questions)

1. Which Excel feature allows splitting one column into multiple columns based on a delimiter?
   a) Filter
   b) Text-to-Columns
   c) Flash Fill
   d) Data Validation

2. Which function returns the number of working days between two dates?
   a) TODAY
   b) NETWORKDAYS
   c) DATEDIF
   d) NOW

3. XLOOKUP is used for:
   a) Data cleaning
   b) Advanced goal analysis
   c) Searching values horizontally and vertically
   d) Creating named ranges

4. Which chart is best suited for showing trends over time?
   a) Line chart
   b) Pie chart
   c) Doughnut chart
   d) Histogram

5. IFERROR(A1/B1, 0) returns 0 when:
   a) The cell is blank
   b) The formula produces an error
   c) The value is less than zero
   d) The result is a text

Section A – Q2: Short Answer Type (5 × 2 = 10 Marks)

(Attempt any five)

1. Define importing and exporting data in Excel with an example.
2. Explain the IFS function with syntax.
3. What is conditional formatting? Mention two examples.

4. Write a note on SUMIF and COUNTIFS functions.
5. Explain INDEX function with a suitable example.
6. What is Goal Seek? Give one practical business application.
7. Explain the difference between Bar Chart and Column Chart.
8. What is a Scenario Manager? Why is it useful?

Section B – Descriptive Answer Type (4 × 5 = 20 Marks)

(Attempt any four)

1. Explain in detail the types of cell references with examples.
2. Discuss text functions LEFT, RIGHT, MID, CONCATENATE and TEXTJOIN with examples.
3. Explain VLOOKUP, XLOOKUP, and INDEX-MATCH with examples comparing their usage.
4. Describe conditional formatting rules and demonstrate their use in decision-making.
5. Explain What-If analysis tools: Goal Seek, Solver, and Data Tables with suitable examples.
6. Describe the process of creating PivotTables and PivotCharts with a practical scenario.
7. Write detailed notes on Dashboard creation using dynamic charts, named ranges, and slicers.
8. Explain case studies such as HR performance analysis and Financial Ratio analysis using Excel functions.

MCQ Answer Key – Set B (5 × 1 = 5 Marks)

1. **b) Text-to-Columns**
2. **b) NETWORKDAYS**
3. **c) Searching values horizontally and vertically**
4. **a) Line chart**
5. **b) The formula produces an error**

End Semester Examination – Dec/Jan 2025

B.Voc. | Subject: Data Analysis Using MS Excel
Question Paper – Set C
Maximum Marks: 35

Section A – MCQs (5 × 1 = 5 Marks)

(Attempt all questions)

1. Which of the following is used to combine text from multiple cells into one cell?
   a) COUNTIFS
   b) CONCATENATE
   c) SUMIFS
   d) IFERROR
2. Which function checks whether a cell is blank?
   a) ISBLANK
   b) IFNA
   c) NOT
   d) DATEDIF
3. OFFSET function is used to:
   a) Remove duplicate values
   b) Return a reference that is a specified number of rows and columns away
   c) Validate data
   d) Highlight errors
4. A Histogram chart is useful for showing:
   a) Category-wise comparison
   b) Trend over time
   c) Frequency distribution of data
   d) Percentage contribution
5. Scenario Manager is used for:
   a) Cleaning raw data
   b) Performing multiple input-based outcome comparisons
   c) Creating dashboards
   d) Combining multiple sheets

Section A – Q2: Short Answer Type (5 × 2 = 10 Marks)

(Attempt any five)

1. What are data types and formats in Excel? Give examples.
2. Explain AND and OR functions with syntax.
3. What is Text-to-Columns? Mention one use-case.
4. Explain how COUNTIFS is different from COUNTIF.
5. What is a PivotChart? How is it different from a normal chart?
6. Define Solver. What is its purpose?

7. Write notes on TODAY and NETWORKDAYS functions.
8. What is Conditional Formatting? Give two examples of rules.

Section B – Descriptive Answer Type (4 × 5 = 20 Marks)

(Attempt any four)

1. Explain different data entry and editing techniques in Excel with suitable examples.
2. Describe IF, IFS, and Nested IF functions with examples.
3. Explain lookup functions: HLOOKUP, INDEX-MATCH, and INDIRECT with examples.
4. Discuss Data Validation techniques and how they help in maintaining clean data.
5. Explain the steps for creating Column, Doughnut, and Waterfall charts with examples.
6. Describe the creation of dynamic dashboards using drop-down lists, named ranges, and sparklines.
7. Explain What-If Analysis tools with focus on Data Tables (1-variable & 2-variable).
8. Describe a case study: Sales Forecasting or HR Performance Analysis using Excel tools.