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## MIS (Management Information System) – Full Course Content

### 1. Introduction to MIS

- Meaning, definition, and scope of MIS
- Importance of MIS in organizations
- Types of information systems
- Decision-making and MIS
- MIS architecture & components

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### 2. Microsoft Excel for MIS

#### A. Excel Basics

- Workbook & worksheet management
- Data entry, formatting, and validation
- Basic formulas: SUM, AVERAGE, COUNT, MIN, MAX
- Logical formulas: IF, AND, OR, NOT
- Text functions: LEFT, RIGHT, MID, CONCAT, TRIM

#### B. Intermediate Excel

- Lookup functions: VLOOKUP, HLOOKUP, XLOOKUP
- Conditional functions: SUMIF, SUMIFS, COUNTIF, COUNTIFS
- Date & time functions
- Sorting & filtering
- Named ranges

#### C. Advanced Excel (MIS Level)

- Pivot Tables & Pivot Charts
- Data modelling
- Power Query
- Power Pivot (DAX basics)
- Scenario Manager, Goal Seek, Solver
- Dashboard creation (charts, slicers, KPIs)

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### 3. VBA (Macros) for MIS Automation

#### A. Introduction

- What is VBA?
- Recording and editing macros
- Developer tools

#### B. Core Programming

- Variables, data types
- Loops (For, Do While)
- If-Else conditions
- Functions & procedures

#### C. Working with Excel Objects

- Range, Cell, Worksheet, Workbook objects
- Automating repetitive tasks
- Creating user forms
- Events (Workbook Open, Button Click)

#### D. Advanced VBA

- Error handling
- Arrays & collections
- Automating reports
- Connecting Excel with databases
- Creating automated dashboards

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### 4. SQL for MIS

#### A. SQL Fundamentals

- What is a database?
- Tables, rows, columns
- Primary key, foreign key

#### B. Basic SQL Commands

- SELECT, FROM, WHERE
- ORDER BY, DISTINCT

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- Comparison operators (=, >, <, LIKE)

### **C. Intermediate SQL**

- JOINS (INNER, LEFT, RIGHT, FULL)
- GROUP BY, HAVING
- Aggregate functions: SUM, AVG, COUNT, MAX, MIN

### **D. Advanced SQL for MIS Reporting**

- Subqueries
- Views
- Stored procedures
- Functions
- Data cleaning using SQL
- Connecting SQL with Excel for MIS reporting

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## **5. MIS Reporting & Dashboards**

- Daily/Weekly/Monthly MIS reports
- HR, Sales, Finance, Inventory MIS
- KPI creation & tracking
- Dynamic dashboards
- Business presentation skills

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## **6. Final Projects**

- Excel Dashboard
  - Macro automation project
  - SQL-based reporting project
  - Full MIS Reporting System
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