Skill Syllabus- Office Tools and Applications

Credits: 4 (03 Theory + 1 Lab)

Theory Units (3 Credits)

Unit 1: Introduction to Spreadsheets: Concepts of worksheets/workbooks: Creating, editing, saving. Managing worksheets: Insert, delete, rename, move, copy. Views, naming cells, data exchange (clipboard, OLE). Print setup: Margins, headers/footers, orientation, PDF export. Protection: File security, sheet protection. Formulas: Relative, absolute, mixed referencing; referencing across sheets/workbooks. Common formula errors and built-in functions: Math, logic, text, date/time.

Unit 2: Data Analysis in Spreadsheets: Consolidating data with formulae and commands. Charts and sparklines: Creation and formatting. Pivot tables: Create, modify, group, filter, calculated fields/items, pivot charts, reports. Macros: Recording and execution.

Unit 3: Word Processing: Document creation, views, styles, formatting (text, paragraph). Page setup: Margins, orientation, headers/footers, sections. Tables: Design, math, graphics. Advanced features: Columns, TOC, indexes, spell/grammar check, thesaurus. Hyperlinks, bookmarks, captions, cross-referencing, bibliography. Mail merge: Main document, data source, filters, conditional merge fields.

Unit 4: Databases: Basics: Terminology, tables, data types, primary keys, validation, indexing. Relationships, joins, data manipulation. Queries: Design/wizard (select, update, append, delete, cross-tab, parameterized). Operators, criteria. Forms: Basic forms, controls, layout, sub-forms, list/combo boxes. Reports: Headers/footers, controls, sorting/grouping, sub-reports.

Recommended Textbooks:

1. **Fundamentals of Computers** *By V. Rajaraman*, Publisher: *PHI Learning Pvt. Ltd.*

2. **Computer Fundamentals and Office Automation** *By Sushila Madan*, Publisher: *Galgotia Publications*

3. **A Textbook of Computer Applications** *By Ashok Arora*, Publisher: *Vikas Publishing House*

4. **Office Automation** *By Suresh K. Basandra*, Publisher: *Galgotia Publications*

5. **Mastering MS Office** *By Sanjay Saxena*, Publisher: *Vikas Publishing House*

Practical Lab Exercises (01 credit):

1. **Document Formatting in MS Word:** Create a formal document using styles, headings, bullet points, alignment, and spacing. Apply page layout settings, insert header/footer, and save as PDF.

2. **Mail Merge in MS Word:** Create a letter and merge it with an address list using Mail Merge. Include IF...THEN...ELSE fields and generate multiple personalized letter.

3. **Table and Graphics in MS Word:** Create a table with student marks, apply formatting, insert a chart, and calculate totals using table formulas.

4. **Worksheet Creation in MS Excel:** Create a mark sheet using formulas for total, average, grade (using IF), and apply cell formatting.

5. **Using Functions in MS Excel:** Apply various built-in functions like SUM, AVERAGE, COUNT, NOW, VLOOKUP, and TEXT functions.

6. **Creating Charts in MS Excel:** Create column, pie, and line charts from a given dataset and format chart elements.

7. **Pivot Table and Pivot Chart in MS Excel:** Generate a pivot table from sales data, group and filter items, and create a pivot chart.