

# **BUDHA DAL PUBLIC SCHOOL, PATIALA**

## **LESSON PLAN OF CLASS VI (SUBJECT: COMPUTER) Term –I & Term-II Syllabus (Session 2024-25)**

### **Term – 1**

**Chapter-1** Computer Memory

**Chapter-2** Computer Virus

**Chapter-3** Excel- Creating worksheet

**Chapter-4** Excel-Functions and Charts

### **Term - 2**

Chapter-6 Google Apps

Chapter-7 Internet Services and Technologies

Chapter-9 Python-Introduction

Chapter-10 Fields of Artificial Intelligence

## **Month-Wise Distribution**

### **APRIL –**

Chapter-1 Computer Memory

### **MAY –**

Chapter-2 Computer Virus

### **JULY –**

Chapter-3 Excel- Creating worksheet

### **AUGUST –**

**Chapter-4** Excel-Functions and Charts

### **SEPTEMBER**

Revision + Half yearly exam

### **OCTOBER -**

Chapter-6 Google Apps

### **NOVEMBER –**

Chapter-7 Internet Services and Technologies

### **DECEMBER –**

**Chapter-9** Python-Introduction

### **JANUARY –**

Ch – 10 Fields of Artificial Intelligence

### **FEBRUARY –**

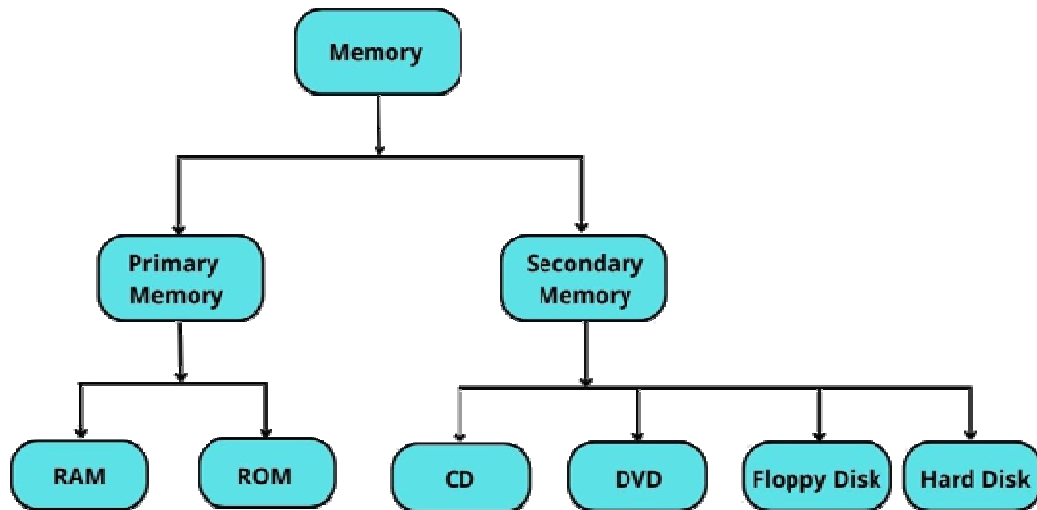
Revision for Final exam

### **MARCH –**

Final Term Exams

# Term-I

## Lesson Plan: Chapter 1 - Computer Memory



- **Topics:**

- Introduction to Computer Memory
- Types of Memory: RAM, ROM, Cache
- Memory Hierarchy
- Memory Units and Storage Capacity
- Importance of Memory in Computer Performance

- **Learning Objectives:**

- Understand the concept of computer memory and its significance.
- Differentiate between various types of memory (RAM, ROM, Cache).
- Comprehend the memory hierarchy and its impact on computer performance.
- Learn about memory units and how storage capacity is measured.

- **Art & Integrated Activity/Project/Practical:**

- Explore computer memory components and their functions through hands-on activities.
- Create diagrams illustrating the memory hierarchy.
- Compare and contrast different types of memory in terms of speed, cost, and capacity.
- Conduct experiments to understand the impact of memory on computer performance.

- **Expected Learning Outcomes:**

- Students will have a thorough understanding of computer memory and its types.
- They will be able to explain the memory hierarchy and its relevance.

- Students will understand memory units and be able to measure storage capacity.
- They will appreciate the importance of memory in enhancing computer performance.
- **Assignment and Assessments/Test:**
  - Assignments on identifying and explaining different memory types.
  - Quizzes on memory hierarchy and storage capacity.
  - Practical tests on memory component identification and functionality.
- **Remedial Measures:**
  - Extra practice sessions and step-by-step guides on memory concepts.
  - Video tutorials explaining different types of memory and their roles.
  - One-on-one assistance and personalized feedback to address specific difficulties.

## May – Chapter 2: Computer Virus



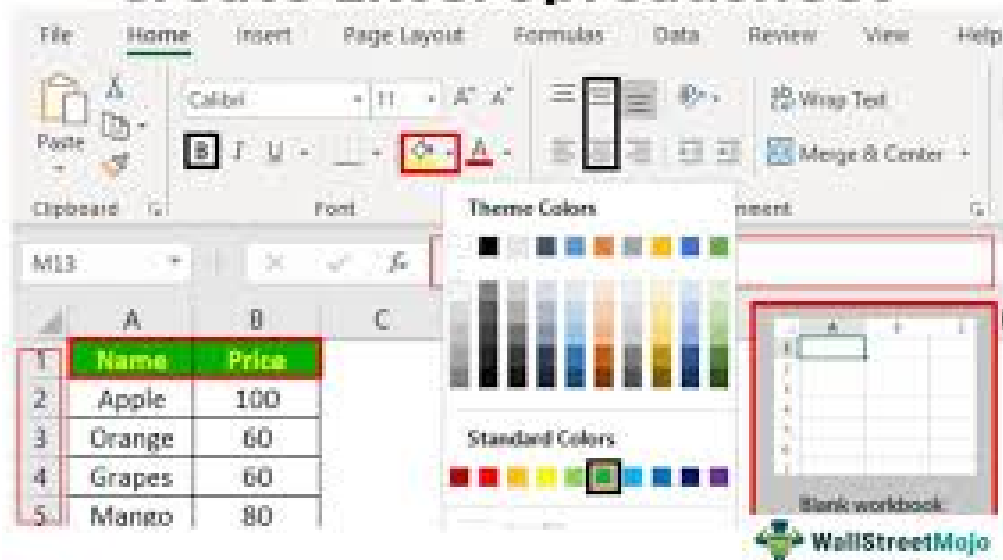
### Lesson Plan: Chapter 2 - Computer Virus

- **Topics:**
  - Introduction to Computer Viruses
  - Types of Computer Viruses
  - Symptoms and Effects of Virus Infections
  - Virus Detection and Removal
  - Preventive Measures and Best Practices
- **Learning Objectives:**
  - Understand what computer viruses are and how they operate.
  - Identify various types of computer viruses.
  - Recognize symptoms and effects of virus infections on computers.

- Learn methods of detecting and removing computer viruses.
- Implement preventive measures to protect computers from viruses.
- **Art & Integrated Activity/Project/Practical:**
  - Research different types of computer viruses and their impacts.
  - Create presentations on famous computer virus cases and their resolutions.
  - Simulate virus detection and removal processes using antivirus software.
  - Develop a set of best practices for virus prevention.
- **Expected Learning Outcomes:**
  - Students will have a clear understanding of computer viruses and their types.
  - They will be able to identify symptoms and effects of virus infections.
  - Students will know how to detect and remove viruses effectively.
  - They will implement preventive measures to safeguard their computers.
- **Assignment and Assessments/Test:**
  - Assignments on researching and presenting different types of viruses.
  - Quizzes on virus symptoms, effects, and preventive measures.
  - Practical tests on using antivirus software for virus detection and removal.
- **Remedial Measures:**
  - Additional practice sessions and detailed guides on virus concepts.
  - Video tutorials on virus detection and removal.
  - Personalized feedback and one-on-one assistance for struggling students.

## July – Chapter 3: Excel - Creating Worksheet

### Create Excel Spreadsheet



## Chapter 3 - Excel: Creating Worksheet

### Lesson Plan: Chapter 3 - Excel: Creating Worksheet

- **Topics:**

Introduction to Excel Interface

Creating a New Workbook and Worksheet

Entering and Editing Data

Using Formulas and Functions

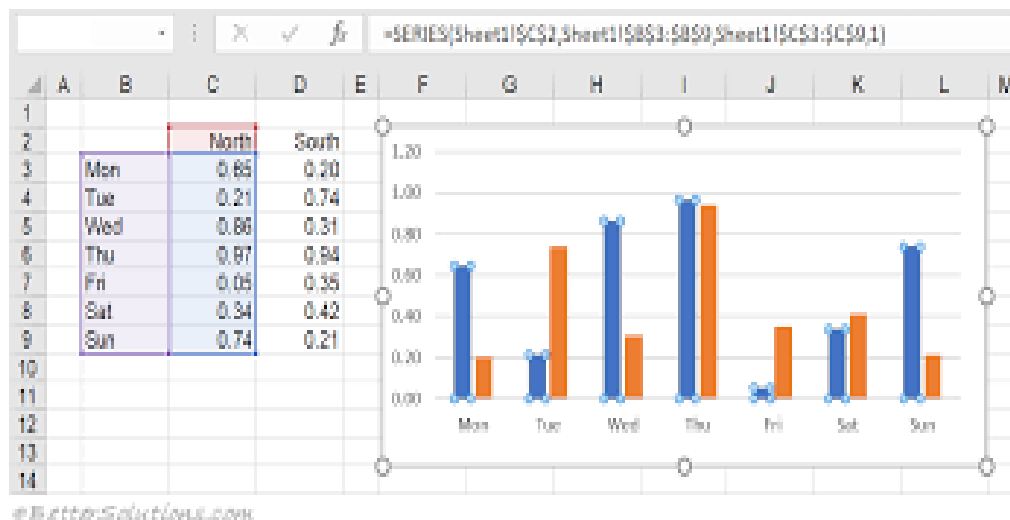
Formatting Cells and Data

Creating and Formatting Tables

- **Learning Objectives:** Students will gain a comprehensive understanding of the Excel interface, including the ribbon, toolbar, and worksheet area. They will learn to create and organize workbooks and worksheets, enter and edit data, and apply various formatting techniques. Students will also be introduced to basic formulas and functions, enabling them to perform calculations and data analysis. Additionally, they will learn to create and format tables, sort and filter data, and create basic charts for data visualization.
- **Project & Practical:** Students will engage in practical activities such as opening Excel to identify interface components, creating workbooks with multiple worksheets, entering and formatting datasets, using basic formulas and functions, applying various cell formatting techniques, converting datasets into formatted tables, sorting and filtering data, and creating different types of charts. These hands-on projects will help reinforce their understanding of each sub-topic by providing real-world application opportunities.
- **Expected Learning Outcomes:** By the end of this chapter, students will confidently navigate the Excel interface, create and manage workbooks and worksheets, enter and format data effectively, use basic formulas and functions for calculations, apply various formatting techniques to enhance data presentation, organize data using tables, sort and filter data for analysis, and create basic charts to visualize data. These skills will enable them to use Excel efficiently for data management and analysis tasks.

- **Assignment and Assessments / Test:** Assignments will include tasks such as creating a workbook with specified worksheets, formatting a dataset, using formulas and functions to solve problems, formatting cells, creating and formatting tables, sorting and filtering data, and generating specified charts. Assessments will consist of quizzes and practical tests to evaluate students' understanding and application of the topics covered.
- **Remedial Measures:** For students needing additional support, remedial measures will include providing extra practice sessions, step-by-step guides, video tutorials, and one-on-one assistance. Additional resources such as templates, examples, and interactive tutorials will be available to help students master the skills and concepts. Personalized feedback will be given to address specific areas of difficulty.

## August – Chapter 4: Excel - Functions and Charts



### Lesson Plan: Chapter 4 - Excel: Functions and Charts

- **Topics:**
  - Introduction to Excel Functions
  - Commonly Used Functions (SUM, AVERAGE, IF, etc.)
  - Using Functions in Formulas
  - Introduction to Charts in Excel
  - Creating and Customizing Charts
- **Learning Objectives:**
  - Understand the purpose and usage of various Excel functions.
  - Apply functions to perform calculations and data analysis.
  - Learn to create and use different types of charts for data visualization.

- Customize charts to enhance their readability and presentation.
- **Art & Integrated Activity/Project/Practical:**
  - Practical exercises on using different Excel functions in datasets.
  - Create real-world scenarios requiring the use of specific functions.
  - Develop and customize charts to represent data visually.
  - Compare different chart types and their appropriate usage.
- **Expected Learning Outcomes:**
  - Students will effectively use various Excel functions for data analysis.
  - They will create and customize charts to represent data visually.
  - Students will be able to choose appropriate chart types for different datasets.
  - They will enhance their data presentation skills using Excel charts.
- **Assignment and Assessments/Test:**
  - Assignments on using functions in formulas and creating charts.
  - Quizzes on function usage and chart creation.
  - Practical tests on applying functions and customizing charts.
- **Remedial Measures:**
  - Extra practice sessions and step-by-step guides on using functions and charts.
  - Video tutorials on creating and customizing charts.
  - Personalized feedback and one-on-one assistance for specific challenges.

## September – Revision + Half Yearly Exam

### Lesson Plan: Revision and Exam Preparation

## Term-II

## October – Chapter 6: Google Apps

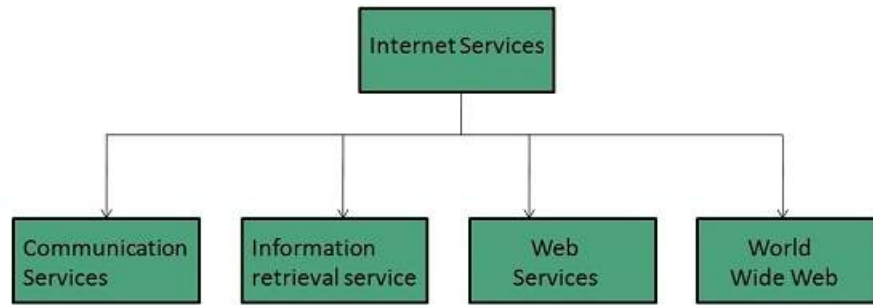


## **Lesson Plan: Chapter 6 - Google Apps**

- **Topics:**
  - Introduction to Google Apps
  - Overview of Google Drive, Docs, Sheets, Slides, and Forms
  - Collaboration and Sharing Features
  - Using Google Apps for Productivity
  - Integrating Google Apps with Other Tools
- **Learning Objectives:**
  - Understand the functionalities of various Google Apps.
  - Use Google Drive, Docs, Sheets, Slides, and Forms effectively.
  - Collaborate and share documents using Google Apps.
  - Enhance productivity using Google Apps features.
- **Art & Integrated Activity/Project/Practical:**
  - Hands-on activities using Google Drive and its applications.
  - Collaborative projects using Google Docs and Sheets.
  - Create presentations with Google Slides.
  - Design surveys and quizzes using Google Forms.
- **Expected Learning Outcomes:**
  - Students will efficiently use Google Apps for various tasks.
  - They will collaborate and share documents seamlessly.
  - Students will enhance their productivity using Google Apps.
  - They will integrate Google Apps with other tools for better workflow.
- **Assignment and Assessments/Test:**
  - Assignments on using different Google Apps for specific tasks.
  - Quizzes on Google Apps functionalities and features.
  - Practical tests on collaboration and sharing using Google Apps.
- **Remedial Measures:**
  - Additional practice sessions and step-by-step guides on Google Apps.
  - Video tutorials on using and integrating Google Apps.
  - Personalized feedback and one-on-one assistance for specific challenges.

**November – Chapter 7: Internet Services and Technologies**





## Lesson Plan: Chapter 7 - Internet Services and Technologies

- **Topics:**

- Introduction to Internet Services
- Email, Instant Messaging, and Social Media
- Cloud Computing and Storage
- Online Collaboration Tools
- Internet of Things (IoT) and Emerging Technologies

- **Learning Objectives:**

- Understand various internet services and their uses.
- Learn to use email, instant messaging, and social media effectively.
- Explore cloud computing and storage options.
- Utilize online collaboration tools for teamwork.
- Gain insights into IoT and emerging internet technologies.

- **Art & Integrated Activity/Project/Practical:**

- Practical exercises on using email and instant messaging.
- Collaborative projects using online tools.
- Research and presentations on emerging internet technologies.
- Explore cloud storage options and their applications.

- **Expected Learning Outcomes:**

- Students will efficiently use various internet services.
- They will communicate and collaborate using online tools.
- Students will understand cloud computing and storage.
- They will explore and appreciate emerging internet technologies.

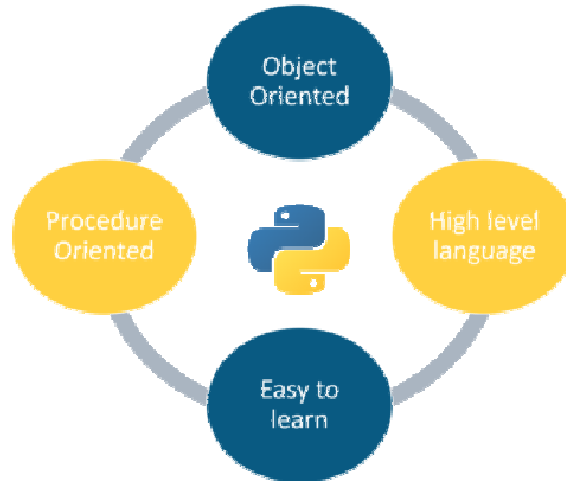
- **Assignment and Assessments/Test:**

- Assignments on using internet services and tools.
- Quizzes on internet technologies and services.
- Practical tests on email, messaging, and collaboration tools.

- **Remedial Measures:**

- Additional practice sessions and step-by-step guides on internet services.
- Video tutorials on using and exploring internet technologies.
- Personalized feedback and one-on-one assistance for specific challenges.

## December – Chapter 9: Python – Introduction



### Lesson Plan: Chapter 9 - Python: Introduction

- **Topics:**

- Introduction to Python Programming
- Setting Up Python Environment
- Basic Syntax and Data Types
- Writing and Executing Python Programs
- Introduction to Functions and Loops

- **Learning Objectives:**

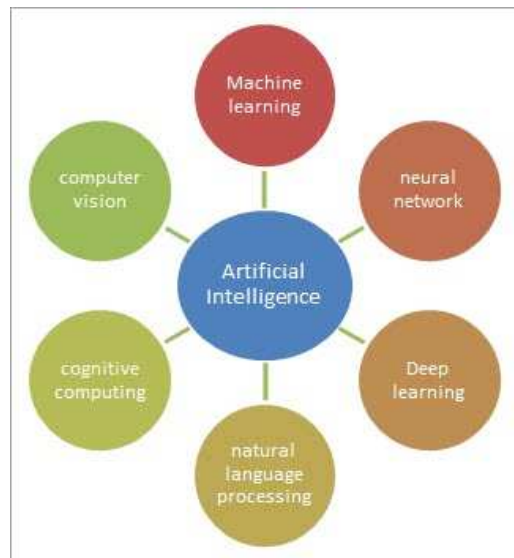
- Understand the basics of Python programming.
- Set up and use the Python programming environment.
- Learn basic syntax and data types in Python.
- Write and execute simple Python programs.
- Get introduced to functions and loops in Python.

- **Art & Integrated Activity/Project/Practical:**

- Hands-on programming exercises in Python.
- Create simple programs to solve real-world problems.
- Explore data types and control structures through coding.

- Develop projects using functions and loops.
- **Expected Learning Outcomes:**
  - Students will understand the basics of Python programming.
  - They will set up and use the Python environment effectively.
  - Students will write and execute basic Python programs.
  - They will use functions and loops in Python coding.
- **Assignment and Assessments/Test:**
  - Assignments on writing simple Python programs.
  - Quizzes on Python syntax and data types.
  - Practical tests on using functions and loops in programs.
- **Remedial Measures:**
  - Additional practice sessions and step-by-step guides on Python basics.
  - Video tutorials on writing and executing Python programs.
  - Personalized feedback and one-on-one assistance for specific challenges.

## January – Chapter 10: Fields of Artificial Intelligence



### Lesson Plan: Chapter 10 - Fields of Artificial Intelligence

- **Topics:**
  - Introduction to Artificial Intelligence (AI)
  - AI Applications in Various Fields
  - Machine Learning and Deep Learning
  - Natural Language Processing (NLP)

- Robotics and AI Ethics
- **Learning Objectives:**
  - Understand the basics of Artificial Intelligence.
  - Explore AI applications in different industries.
  - Learn about machine learning and deep learning concepts.
  - Get introduced to natural language processing.
  - Discuss robotics and ethical considerations in AI.
- **Art & Integrated Activity/Project/Practical:**
  - Research and presentations on AI applications.
  - Explore machine learning through practical examples.
  - Create simple NLP programs.
  - Discuss and debate ethical issues in AI.
- **Expected Learning Outcomes:**
  - Students will understand the basics of AI and its applications.
  - They will explore machine learning and NLP concepts.
  - Students will appreciate the role of robotics in AI.
  - They will discuss ethical considerations in AI development.
- **Assignment and Assessments/Test:**
  - Assignments on researching and presenting AI applications.
  - Quizzes on machine learning and NLP.
  - Practical tests on creating simple AI programs.
- **Remedial Measures:**
  - Additional practice sessions and step-by-step guides on AI basics.
  - Video tutorials on AI applications and concepts.
  - Personalized feedback and one-on-one assistance for specific challenges.

**February – Revision for Final Exam**

**March – Final Term Exams**