COMPUTER SYLLABUS

Class – 7

7th Class Computer Syllabus – An Overview

In Class 7, the NCERT Computer syllabus delves deeper into computing concepts and introduces more advanced topics. Here's a comprehensive breakdown of the topics and sub-topics typically covered:

Here our chapters for ITSE Examination :-

Chapter – 1 (*Introduction to Computers*)

Chapter – 2 (*Understanding Operating Systems*)

Chapter – 3 (Advanced Word Processing)

Chapter – 4 (Spreadsheets for Data Analysis)

Chapter - 5 (Presentation Tools)

Chapter - 6 (Internet and Digital Communication)

Chapter – 7 (Multimedia and Graphics)

Chapter – 8 (*Introduction to Programming*)

Chapter - 9 (*Web Development Basics*)

Chapter - 10 (*Cyber Safety and Ethics*)

Chapter - 11 (*Practical Applications and Projects*)

Chapter – 1 (Introduction to Computers)

Topics and Sub – Topics :-

- **Recap of Computer Basics**
  - Definition and essential functions of a computer.
  - Overview of the evolution and types of computers.
- **Components of a Computer System**
  - Detailed look at hardware components: CPU, memory, storage.
  - Types of software: System software, Application software, Utility programs.

Chapter – 2 (Understanding Operating Systems)

Topics and Sub – Topics :-

- **Functions of an Operating System**
  - Managing hardware and software resources.
  - User interface basics: Graphical User Interface (GUI) and Command Line Interface (CLI).
- **File Management**
  - Organizing files and folders.
  - File extensions and types.
- **Using Common Operating Systems**
  - Introduction to different operating systems: Windows, macOS, Linux.

Chapter – 3 (Advanced Word Processing)

Topics and Sub – Topics :-

- **Creating and Formatting Documents**
  - Using styles, templates, and themes.
  - Advanced formatting techniques: Columns, headers and footers, page breaks.
- **Inserting and Managing Media**
  - Adding and formatting images, tables, charts, and hyperlinks.
- **Document Collaboration and Review**
  - Track changes, comments, and document protection.
  - Printing and exporting documents in various formats.

Chapter – 4 (Spreadsheets for Data Analysis)

Topics and Sub – Topics :-

- **Advanced Spreadsheet Concepts**
  - Understanding and using different types of data.
  - Applying data validation and conditional formatting.
- **Formulas and Functions**
  - Using advanced formulas and functions for calculations (IF, VLOOKUP).
  - Understanding and applying cell references (relative, absolute, mixed).
- **Data Visualization**
  - Creating and customizing complex charts and graphs.
  - Using pivot tables for data summarization and analysis.

Chapter - 5 (Presentation Tools)

Topics and Sub – Topics :-

- **Designing Effective Presentations**

  - Creating slides with text, images, and multimedia.
  - Using slide layouts and themes.

- **Advanced Presentation Techniques**

  - Adding animations and transitions.
  - Embedding audio and video clips.

- **Delivering Presentations**

  - Tips for effective presentation delivery.
  - Printing slides and handouts.

Chapter - 6 (Internet and Digital Communication)

Topics and Sub – Topics :-

- **Advanced Internet Concepts**

  - Understanding how the internet and networks work.
  - Introduction to IP addresses, DNS, and URLs.

- **Online Research and Information Gathering**
  - Effective use of search engines and advanced search techniques.
  - Evaluating the credibility of online sources.

- **Digital Communication Tools**
  - Using email, social media, and instant messaging responsibly.
  - Basics of video conferencing and collaborative tools.

Chapter – 7 (Multimedia and Graphics)

Topics and Sub – Topics :-

- **Introduction to Multimedia Authoring**
    - Combining text, graphics, audio, and video in multimedia projects.
    - Introduction to multimedia software tools.
- **Creating and Editing Graphics**
    - Basic concepts of digital image editing.
    - Using software to create and manipulate images.
- **Audio and Video Editing**
    - Basics of audio and video editing.
    - Using tools to create simple multimedia presentations.

Chapter – 8 (Introduction to Programming)

Topics and Sub – Topics :-

- **Programming Concepts**
    - Understanding algorithms and flowcharts.
    - Basic programming constructs: variables, loops, conditionals.
- **Block-based Programming**
    - Creating programs using tools like Scratch.
    - Understanding and using blocks for control, motion, and events.

- **Introduction to Text-based Programming**
    - Basics of Python or another text-based language.
    - Writing and executing simple scripts.

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Chapter - 9 (Web Development Basics)

Topics and Sub – Topics :-

- **Understanding the Web**
    - Basic concepts of web pages and websites.
    - Introduction to HTML and its structure.
- **Creating Simple Web Pages**
    - Using HTML to create and format web pages.
    - Adding links, images, and tables to web pages.
- **Introduction to CSS**
    - Basic CSS concepts for styling web pages.
    - Applying styles to HTML elements.

Chapter - 10 (Cyber Safety and Ethics)

Topics and Sub – Topics :-

- **Safe Online Practices**

- Understanding cyber threats and how to protect against them.
- Importance of strong passwords and secure browsing.

- **Digital Citizenship**

  - Respecting intellectual property and avoiding plagiarism.
  - Responsible and ethical use of technology.

- **Privacy and Security**

  - Understanding data privacy and personal information protection.
  - Basics of cyber security measures.

Chapter - 11 (Practical Applications and Projects)

Topics and Sub – Topics :-

- **Integrated Projects**

  - Applying knowledge from different topics to create comprehensive projects.
  - Examples: Creating a newsletter, designing a website, developing a simple game.

- **Hands-on Activities**

  - Practical exercises to reinforce learning.
  - Group projects to enhance teamwork and collaboration skills.