SHIKSHA NATION

ICSE Class 10 Computer Applications

(Subject Code: 165)
Self-Created Revision Notes by Shiksha Nation

How to Use This PDF

This PDF is designed for revision and exam preparation, not for first-time learning. Students should use it after completing chapters from school notes or classroom teaching. Read one chapter at a time, revise definitions, and practise related programs regularly.

Parents can use this PDF to track progress and support daily revision. It is especially useful before unit tests, practical exams, and board exams. Print selected pages if needed, highlight key points, and revise calmly instead of rushing at the last moment.

ICSE Code 165 - Syllabus Snapshot

The ICSE Class 10 Computer Applications syllabus focuses on logical thinking, problem-solving, and programming skills. Under Subject Code 165, students are expected to understand how computer systems work and how programs are written using Java.

The syllabus maintains a balance between theory and programming. Theory questions test understanding of concepts like hardware, networking, and ethics, while programming questions test logic, accuracy, and presentation. Regular practice is essential to score well.

Programming plays a major role, especially Java basics, arrays, and string handling. Internal assessment and practical work also contribute to confidence and performance. Parents should encourage consistent practice, as last-minute study is not effective for programming subjects.

Chapter 1 - Computer System & Hardware Concepts

A computer system is a combination of hardware and software that works together to process data and produce output. Understanding this chapter is important because it forms the foundation of Computer Applications.

Input and Output Devices

Input devices are used to enter data into the computer. Examples include keyboard, mouse, scanner, and microphone.
Output devices display the result of processing. Common examples are monitor, printer, and speakers.

Central Processing Unit (CPU)

The CPU is called the brain of the computer. It controls all operations and processes data.

CPU Part	Function
ALU	Performs calculations and logical operations
Control Unit	Directs all computer activities
Registers	Temporary storage during processing

Memory and Storage

Memory stores data and instructions.

- Primary Memory: RAM (temporary), ROM (permanent)
- Secondary Storage: Hard disk, pen drive, CD/DVD

Students should learn definitions clearly, as short-answer questions are common from this chapter.

Chapter 2 - Data Representation & Number Systems

Computers do not understand decimal numbers directly. They use number systems to store and process data. This chapter is important because conversion questions are frequently asked in exams.

Types of Number Systems

Number System	Base	Digits
Decimal	10	0-9
Binary	2	0,1
Hexadecimal	16	0-9, A-F

The binary system is used by computers because electronic circuits work in two states. The hexadecimal system is used to represent large binary values in a shorter form.

Conversion Basics

Students must practise:

- Decimal to Binary
- Binary to Decimal
- Binary to Hexadecimal

Exam tip: Always show steps. Marks are often given for correct method even if the final answer is wrong.

Regular practice of conversions improves speed and confidence during exams.

Chapter 3 - Internet Basics & Networking

The internet is a global network connecting computers worldwide. It allows users to share information and communicate easily.

World Wide Web (WWW)

The WWW is a collection of web pages stored on web servers and accessed through browsers.

Web Browsers

Browsers are software used to open websites. Examples include Chrome and Firefox.

Internet Services

Common services include email, search engines, online learning, and video calls.

Networking Basics

Networking means connecting computers to share data and resources. Students should understand basic terms, as questions are usually direct and scoring.

Chapter 4 - Boolean Logic & Logic Gates

Boolean logic uses true/false (1/0) values. Computers use this logic to make decisions.

AND, OR, NOT Gates

Gate	Output Rule
AND	True only if both inputs are true
OR	True if any one input is true
NOT	Reverses the input

Truth Tables

Truth tables show all possible input combinations and outputs. Students should practise drawing neat tables, as presentation matters in ICSE exams.

This chapter also helps in understanding conditional statements in programming.

Chapter 5 - Programming Basics (Java)

Java programming is a core part of ICSE Computer Applications. Students write short programs to solve logical problems.

Variables and Data Types

Variables store values in a program. Data types decide the type of data stored.

Data Type	Use
int	Whole numbers
double	Decimal values
char	Single character
boolean	true/false

Input and Output

Programs take input and display output using simple statements. Output formatting should be neat and accurate.

Conditional Statements

Conditional statements allow decision-making.

- if
- if-else
- nested if (basic)

Students should focus on logic instead of memorising programs.

Chapter 6 - Arrays & String Handling (Java)

Arrays store multiple values of the same type using one variable name. Only one-dimensional arrays are included in the syllabus.

String Handling

Strings are groups of characters. Common functions include:

- length()
- toUpperCase()
- toLowerCase()
- charAt()

ICSE exams often ask output-based and logic-based questions from this chapter. Regular practice is important.

Chapter 7 - Ethical Issues & Cyber Safety

This chapter teaches responsible use of computers and the internet.

Cyber Ethics

Ethical behaviour includes respecting privacy, using licensed software, and avoiding plagiarism.

Cyber Safety

Students should know basic safety rules like strong passwords and avoiding unknown links.

E-Commerce Risks

Online shopping risks include fraud and data theft. Questions from this chapter are usually short and easy to score.

Exam-Oriented Java Practice Tips

- Practise writing programs by hand
- Focus on logic, not memorisation
- Trace programs step by step
- Revise common patterns

Daily practice, even for 20 minutes, improves accuracy and confidence.

Common Mistakes ICSE Students Make

- Memorising programs without understanding
- Skipping practice of output questions
- Poor answer presentation

Students who practise regularly and write neatly score better.

Quick Revision Tables

Includes:

- Logic gate truth tables
- Java syntax reminders
- Number system steps

Use this section one day before exams.

Final Revision Tips (Students & Parents)

Revise one chapter per day in the final week. Avoid learning new topics at the last moment. Parents should provide a calm environment and avoid pressure. Proper sleep and steady revision help students perform well in exams.

About This PDF

This PDF is created by Shiksha Nation as revision support for ICSE Class 10 Computer Applications students. It is self-prepared and meant to support understanding and practice. It does not replace textbooks or teacher guidance.