ZAHID NOTES • FEDERAL BOARD

9th Class Computer Science Notes Federal Board (FBISE) Full Book Notes

Complete chapter-wise study notes, key terms and original practice questions for Class 9 Computer Science.

About these notes

These notes follow the chapters of the National Book Foundation book *Model Textbook of Computer Science Grade 9*, used for FBISE Class 9:
1. Computer Systems • 2. Computational Thinking and Algorithms • 3. Programming Fundamentals • 4. Data and Analysis • 5. Applications of Computer Science • 6. Impacts of Computing • 7. Entrepreneurship.

Each chapter contains study notes, key terms, and original practice questions (multiple-choice, short and long questions) written for these notes, with an MCQ answer key at the end of the book.

About the FBISE paper: The FBISE Class 9 Computer Science paper is SLO-based, with multiple-choice questions (including scenario-based questions), short questions and long questions. The paper pattern was recently restructured, so please check the current model paper on the official FBISE website, **fbise.edu.pk**, before your examination. No marks, duration or pass marks are printed in these notes.

For students of the Federal Board of Intermediate and Secondary Education (FBISE), Islamabad.

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End MCQ Answer Key (all chapters)

How to use these notes

- Read the study notes of one chapter first, and learn the key terms at the end of the chapter.
- Then try the practice questions without looking at the notes. Check your MCQs against the answer key at the end.
- For short and long questions, write full answers in your own words — that is how you will answer in the examination.
- For Chapter 3, type the small HTML, CSS and JavaScript examples on a computer and see what they do.

Note: All practice questions in this book are original questions written for these notes. They are practice material, not past papers, and no question in this book is presented as an official FBISE question.

Chapter 1: Computer Systems

A computer system is a combination of hardware, software, data and people working together to accept input, process it, store results and give output. This chapter explains how the parts of a computer fit together and how data is represented inside it.

1.1 What is a computer system?

- A computer is an electronic device that takes input, processes it according to instructions, stores data and produces output.
- Hardware is the physical part of a computer — keyboard, monitor, processor, memory and storage. Software is the set of programs that tells the hardware what to do.
- A system works only when hardware and software work together; neither can do useful work alone.
- People — users, programmers and operators — are also part of a computer system because they give instructions and use the results.

1.2 Input, processing, storage and output

- Input devices: keyboard, mouse, scanner, microphone and camera. They send data into the computer.
- Processing is done by the Central Processing Unit (CPU). The CPU has a Control Unit (CU), which directs operations, and an Arithmetic Logic Unit (ALU), which does calculations and logical comparisons.
- Memory: RAM is temporary working memory — its contents are lost when power is off. ROM holds start-up instructions and keeps its contents without power.
- Storage devices — hard disk, SSD and USB drive — keep data and programs for a long time. Output devices — monitor, printer and speakers — present results to the user.

1.3 Data representation

- All data inside a computer is stored as binary digits: 0 and 1, called bits. Eight bits make one byte.
- A bit is the smallest unit of data; a byte can represent one character, such as a letter or a digit.
- Numbers, text, images and sound are all converted into binary patterns before the computer can process them.
- Larger units: kilobyte (KB), megabyte (MB), gigabyte (GB) and terabyte (TB) — each roughly 1,000 times the previous one in everyday use.

1.4 Types of software

- System software manages the hardware and provides a platform for other programs. The operating system is the main example.
- Application software helps the user do a task — word processing, spreadsheets, web browsing and drawing programs.
- Utility software helps maintain the computer, for example by checking for errors or protecting it from harmful programs.
- An operating system manages files, memory and devices, and provides the interface through which the user controls the computer.

Key terms

- CPU — Central Processing Unit, the processor of the computer. CU — Control Unit. ALU — Arithmetic Logic Unit.
- RAM — Random Access Memory (temporary). ROM — Read Only Memory (permanent start-up instructions).
- Bit — a single 0 or 1. Byte — 8 bits. Hardware — physical parts. Software — programs and instructions.

Chapter 1: Computer Systems — Practice Questions

Multiple-Choice Questions

Q1. Which part is known as the brain of the computer?

(A) Monitor (B) CPU (C) Keyboard (D) Printer

Q2. How many bits make one byte?

(A) 2 (B) 4 (C) 8 (D) 16

Q3. Which of these is an input device?

(A) Printer (B) Monitor (C) Mouse (D) Speaker

Q4. RAM is best described as:

(A) permanent storage (B) temporary working memory (C) an output device (D) a printer

Q5. Which unit controls the operations of the CPU?

(A) ALU (B) CU (C) ROM (D) SSD

Q6. Which of these is system software?

(A) Word processor (B) Operating system (C) Web browser (D) Spreadsheet

Q7. Which device is used for long-term storage?

(A) RAM (B) Hard disk (C) Cache (D) Register

Q8. A computer converts all data into:

(A) decimal numbers (B) binary digits (C) letters only (D) sound waves

Q9. Which of these is an output device?

(A) Scanner (B) Microphone (C) Printer (D) Keyboard

Q10. ROM is used mainly to store:

(A) user documents (B) start-up instructions (C) videos (D) games

Short Questions

Q1. Define a computer system.

Q2. What is the difference between hardware and software?

Q3. State the function of the Control Unit and the Arithmetic Logic Unit.

Q4. Why is RAM called temporary memory?

Q5. Give two examples each of input devices and output devices.

Long Questions

Q1. Explain the input–process–output cycle of a computer with a labelled example of your own.

Q2. Describe how data is represented inside a computer and explain the units bit, byte, kilobyte and gigabyte.

> Write each answer in your own words, in full sentences. For long questions, give an introduction, the main points with examples, and a short conclusion.

Chapter 2: Computational Thinking and Algorithms

Computational thinking is a way of solving problems by breaking them into clear, ordered steps. An algorithm is a finite, step-by-step procedure that solves a problem. This chapter builds the habit of thinking before coding.

2.1 Computational thinking

- Decomposition: break a large problem into smaller, easier parts.
- Pattern recognition: look for similarities and repeated ideas in problems you have solved before.
- Abstraction: keep only the important details and ignore what is not needed for the solution.
- Algorithm design: arrange the steps in a clear order so that anyone — or a computer — can follow them.

2.2 What is an algorithm?

- An algorithm is a finite sequence of clear steps that solves a problem and always comes to an end.
- A good algorithm is clear (each step is easy to understand), correct (it gives the right answer), and efficient (it does not waste time or steps).
- Algorithms are written in plain language, in pseudocode, or drawn as flowcharts before they are turned into a program.
- Everyday examples: a recipe, directions to a place, or the steps for finding the largest of three numbers.

2.3 Pseudocode and flowcharts

- Pseudocode uses short English-like statements, for example: INPUT a number; IF the number is greater than 0 THEN display 'Positive'.
- Flowchart symbols: oval = start/stop, parallelogram = input/output, rectangle = process, diamond = decision.
- Flowcharts show the order of steps and the places where a decision changes the path.
- A flowchart and its pseudocode should describe exactly the same steps, in the same order.

2.4 Control structures

- Sequence: steps run one after another in order.
- Selection: a decision (IF … ELSE) chooses one path or another.
- Iteration (loop): a set of steps repeats while a condition is true.
- Most programs are built by combining sequence, selection and iteration.

Key terms

- Algorithm — a finite step-by-step procedure. Pseudocode — an English-like description of an algorithm.
- Flowchart — a diagram of an algorithm using standard symbols. Decomposition — breaking a problem into parts.
- Abstraction — keeping only the essential details. Iteration — repetition of steps. Selection — choosing a path by a condition.

Chapter 2: Computational Thinking and Algorithms — Practice Questions

Multiple-Choice Questions

Q1. Breaking a large problem into smaller parts is called:

(A) abstraction (B) decomposition (C) iteration (D) compilation

Q2. An algorithm must always:

(A) run forever (B) come to an end (C) use a computer (D) contain a loop

Q3. In a flowchart, a diamond shape means:

(A) start (B) input (C) decision (D) process

Q4. Which symbol is used for input or output?

(A) Oval (B) Rectangle (C) Parallelogram (D) Diamond

Q5. Ignoring unimportant details is called:

(A) decomposition (B) pattern recognition (C) abstraction (D) debugging

Q6. IF … ELSE is an example of:

(A) sequence (B) selection (C) iteration (D) input

Q7. Repeating steps while a condition is true is:

(A) selection (B) sequence (C) iteration (D) abstraction

Q8. Pseudocode is written in:

(A) machine code (B) short English-like statements (C) binary (D) symbols only

Q9. A rectangle in a flowchart means:

(A) decision (B) process (C) start (D) output

Q10. Which quality makes an algorithm correct?

(A) It is long (B) It gives the right answer (C) It uses many symbols (D) It never ends

Short Questions

Q1. Define an algorithm and state two qualities of a good algorithm.

Q2. What is decomposition? Give an example.

Q3. What is the difference between pseudocode and a flowchart?

Q4. Name the three control structures.

Q5. What is abstraction?

Long Questions

Q1. Write an algorithm and a flowchart to find the largest of three numbers.

Q2. Explain computational thinking with its four parts, giving one example of each.

> Write each answer in your own words, in full sentences. For long questions, give an introduction, the main points with examples, and a short conclusion.

Chapter 3: Programming Fundamentals

A program is a set of instructions written in a programming language. This chapter introduces the building blocks of programs — data, variables, operators and control structures — and the three languages that build web pages: HTML, CSS and JavaScript.

3.1 Programs and programming languages

- A program is a set of instructions that tells a computer what to do, written in a programming language.
- High-level languages such as Python and JavaScript use words close to English; the computer translates them into machine code.
- A compiler translates a whole program at once; an interpreter translates and runs it line by line.
- Writing a program follows steps: understand the problem, plan the algorithm, write the code, test it and fix errors (debugging).

3.2 Data types and variables

- A variable is a named place in memory that stores a value which can change while the program runs.
- Common data types: integer (whole numbers, e.g. 25), float/real (numbers with a decimal point, e.g. 3.5), string (text, e.g. 'Ali'), and boolean (true or false).
- A constant stores a value that does not change, such as the number of days in a week.
- Choosing the right data type matters: adding two numbers needs numbers, not text.

3.3 Operators

- Arithmetic operators: + (add), − (subtract), * (multiply), / (divide), % (remainder).
- Comparison operators: == (equal to), != (not equal to), > (greater than), < (less than). They give a true or false result.
- Logical operators: AND (both true), OR (at least one true), NOT (reverses true and false).
- Assignment operator = stores a value in a variable, for example: marks = 85.

3.4 Selection and loops in programs

- Selection with IF … ELSE lets a program choose: IF score >= 80 THEN display 'Excellent' ELSE display 'Keep practising'.
- A loop repeats steps: a FOR loop repeats a known number of times; a WHILE loop repeats while a condition is true.
- A loop must have a way to stop, or it will repeat forever — an infinite loop.
- Testing a program with different inputs (including wrong ones) helps find errors before users do.

3.5 Building web pages: HTML, CSS and JavaScript

- HTML (HyperText Markup Language) gives a web page its structure and content — headings, paragraphs, links and images.
- CSS (Cascading Style Sheets) controls how the page looks — colours, fonts, spacing and layout.
- JavaScript adds behaviour and interactivity — responding to a click, checking a form, or changing content without reloading the page.
- The three work together: HTML is the structure, CSS is the appearance, and JavaScript is the behaviour.

Key terms

- Program — a set of instructions for a computer. Variable — a named store for a changing value.
- Data type — the kind of value (integer, float, string, boolean). Operator — a symbol that performs an operation.
- Debugging — finding and fixing errors. HTML — structure of a web page. CSS — appearance of a web page. JavaScript — behaviour of a web page.

Example 1 — HTML: structure

```
<h1>My School</h1>
<p>Welcome to our computer lab.</p>
```

Example 2 — CSS: appearance

```
h1 { color: navy; }
p { font-size: 16px; }
```

Example 3 — JavaScript: behaviour

```
let score = 85;
if (score >= 80) {
  alert("Excellent");
} else {
  alert("Keep practising");
}
```

In Example 3, **let** declares a variable, **score >= 80** is a comparison, and **alert** shows the result. The same IF … ELSE idea from Section 3.4 appears here in real code.

Chapter 3: Programming Fundamentals — Practice Questions

Multiple-Choice Questions

Q1. A program is:

(A) a computer part (B) a set of instructions (C) a storage device (D) an input device

Q2. Which data type stores text?

(A) Integer (B) Float (C) String (D) Boolean

Q3. Which operator gives the remainder?

(A) / (B) * (C) % (D) +

Q4. A boolean value can be:

(A) any number (B) true or false (C) any word (D) a colour

Q5. HTML is mainly used for:

(A) page appearance (B) page structure and content (C) page behaviour (D) storing data

Q6. CSS controls:

(A) structure (B) behaviour (C) appearance (D) storage

Q7. JavaScript is used to add:

(A) structure (B) colours (C) interactivity (D) fonts

Q8. The symbol == means:

(A) assign a value (B) equal to (C) greater than (D) not equal to

Q9. A WHILE loop repeats:

(A) once only (B) a fixed number of times (C) while a condition is true (D) never

Q10. Finding and fixing errors in a program is called:

(A) compiling (B) debugging (C) saving (D) printing

Short Questions

Q1. Define a variable and give an example.

Q2. What is the difference between a compiler and an interpreter?

Q3. State the roles of HTML, CSS and JavaScript in a web page.

Q4. What is a constant? How is it different from a variable?

Q5. What is the purpose of a loop?

Long Questions

Q1. Explain the four data types (integer, float, string, boolean) with one example of each, and show how a variable of each type would be used.

Q2. Write short code examples to show (a) an IF … ELSE decision and (b) a loop, and explain what each one does.

> Write each answer in your own words, in full sentences. For long questions, give an introduction, the main points with examples, and a short conclusion.

Chapter 4: Data and Analysis

Data is the raw material of computing: facts and figures that become useful information when they are organised and analysed. This chapter covers types of data, how data is stored in files and tables, and how simple analysis turns data into decisions.

4.1 Data and information

- Data is raw facts and figures, such as a list of marks: 78, 65, 90, 54.
- Information is data that has been organised and given meaning, such as 'the class average is 71.75'.
- The same data can give different information depending on how it is organised and what question is asked.
- Good decisions need data that is accurate, complete and up to date.

4.2 Types of data

- Numeric data is numbers used for calculation — marks, ages, prices.
- Text data is words and letters — names, addresses, comments.
- Boolean data is true/false — for example, 'fee paid: yes/no'.
- Date/time data records when something happened. Images, audio and video are also forms of data.

4.3 Organising data: tables and files

- A table organises data in rows and columns. Each row is one record (for example, one student); each column is one field (for example, name or marks).
- A field is a single piece of data; a record is a complete set of fields about one item; a file is a collection of related records.
- A primary key is a field that uniquely identifies each record, such as a roll number — no two students share one.
- Sorting arranges records in order (by marks, or by name); searching finds records that match a condition.

4.4 Simple data analysis

- Analysis means looking at data to find patterns, totals and averages that answer a question.
- Common measures: total, average (mean), maximum and minimum values.
- A chart — bar chart or pie chart — makes patterns visible at a glance; a table is better for exact values.
- Always check the result: a wrong entry or a missing record can change the average and mislead the conclusion.

4.5 Data privacy and safety

- Personal data — names, addresses, phone numbers — should be shared only when necessary and only with trusted people.
- A strong password is long, mixes letters, numbers and symbols, and is not shared with others.
- Backups (extra copies) protect data against loss from a damaged device or a mistake.
- Think before posting personal information online: once shared, it is hard to take back.

Key terms

- Data — raw facts and figures. Information — organised, meaningful data. Record — one complete row in a table.
- Field — one column, one piece of data. Primary key — a field that uniquely identifies a record.
- Average (mean) — total divided by how many values there are. Backup — an extra copy of data.

Chapter 4: Data and Analysis — Practice Questions

Multiple-Choice Questions

Q1. Data that has been organised and given meaning is:

(A) a file (B) information (C) a byte (D) a program

Q2. The marks 78, 65, 90 are an example of:

(A) raw data (B) a decision (C) a chart (D) a password

Q3. In a table, one row about one student is a:

(A) field (B) file (C) record (D) key

Q4. A roll number used to identify each student uniquely is a:

(A) field only (B) primary key (C) chart (D) backup

Q5. Which of these is numeric data?

(A) A name (B) An address (C) A price (D) A comment

Q6. The average of 10, 20 and 30 is:

(A) 10 (B) 20 (C) 30 (D) 60

Q7. Sorting data means:

(A) deleting it (B) arranging it in order (C) printing it (D) hiding it

Q8. A bar chart is most useful for:

(A) exact values (B) showing patterns at a glance (C) storing data (D) typing text

Q9. A backup is:

(A) a password (B) an extra copy of data (C) a virus (D) a chart

Q10. Which is the safest habit for personal data?

(A) Share it freely (B) Use a short password (C) Share only when necessary (D) Post it online

Short Questions

Q1. Define data and information, and give one example of each.

Q2. What is the difference between a field and a record?

Q3. What is a primary key? Give an example.

Q4. Why is a backup important?

Q5. Name three types of data with one example of each.

Long Questions

Q1. A class of five students scored 60, 70, 80, 90 and 100. Find the total, the average, the maximum and the minimum, and explain what each result tells the teacher.

Q2. Explain how data is organised in a table (fields, records, files, primary key) and how sorting and searching help a user find information.

> Write each answer in your own words, in full sentences. For long questions, give an introduction, the main points with examples, and a short conclusion.

Chapter 5: Applications of Computer Science

Computer science is used in almost every part of life — in schools, hospitals, banks, farms, offices and homes. This chapter looks at common applications and the tools people use every day, including word processing, spreadsheets and the internet.

5.1 Computers in everyday life

- Education: online lessons, digital notes, and computer-based tests.
- Health: patient records, appointment systems, and machines that help doctors see inside the body.
- Banking: ATMs, online payments, and records of accounts and transactions.
- Business: stock records, billing, and communication with customers; farming: weather information and crop records.

5.2 Word processing

- A word processor is used to write, edit and print documents — letters, notes and reports.
- Formatting changes how text looks: bold, italic, font size and colour; alignment (left, centre, right) changes where it sits.
- Useful tools: spell-check, find and replace, copy and paste, and inserting tables and pictures.
- Save work often, and keep a copy, so that a power cut does not lose the document.

5.3 Spreadsheets

- A spreadsheet organises data in a grid of rows and columns; each box is a cell, named by column letter and row number (for example, B3).
- A formula calculates a result from cell values, for example =SUM(B2:B6) adds the values in cells B2 to B6.
- Spreadsheets are used for marks, budgets, shop stock and any data that needs totals and averages.
- Charts made from spreadsheet data show trends — for example, marks improving over the term.

5.4 The internet and the World Wide Web

- The internet is a worldwide network of connected computers; the World Wide Web is the collection of web pages reached through it.
- A web browser (such as Chrome or Firefox) is the program used to open web pages; a search engine helps find pages on a topic.
- Email sends messages and files to other people; a web address (URL) is the address of a page.
- Use the internet carefully: check whether a source is trustworthy before believing or sharing what it says.

5.5 Communication and collaboration

- People work together online by sharing documents, sending messages and holding video calls.
- Shared documents let several people edit the same file, each seeing the latest version.
- Good online manners matter: be polite, do not share other people's work as your own, and respect privacy.
- Digital files can be shared quickly, but a file sent to the wrong person is hard to take back.

Key terms

- Word processor — software for writing and editing documents. Spreadsheet — a grid of cells for data and calculations.
- Cell — one box in a spreadsheet, e.g. B3. Formula — a calculation in a spreadsheet, e.g. =SUM(B2:B6).
- Internet — the worldwide network. Web browser — software for opening web pages. URL — a web page address.

Chapter 5: Applications of Computer Science — Practice Questions

Multiple-Choice Questions

Q1. Which application is used to write a letter?

(A) Spreadsheet (B) Word processor (C) Web browser (D) Media player

Q2. In a spreadsheet, the box B3 is called a:

(A) row (B) column (C) cell (D) formula

Q3. The formula =SUM(B2:B6) will:

(A) count cells (B) add the values B2 to B6 (C) find the average (D) sort the data

Q4. The internet is best described as:

(A) a web browser (B) a worldwide network of computers (C) a search engine (D) a single website

Q5. A web browser is used to:

(A) write letters (B) open web pages (C) add numbers (D) print photos

Q6. Which of these is a use of computers in health?

(A) Online payments (B) Patient records (C) Billing (D) Crop records

Q7. A URL is:

(A) an email (B) a web page address (C) a password (D) a file name

Q8. Which habit protects a document from loss?

(A) Never saving (B) Saving often (C) Closing without saving (D) Deleting copies

Q9. A search engine helps you to:

(A) find web pages (B) write documents (C) calculate totals (D) send emails

Q10. Sharing another person's work as your own is:

(A) good practice (B) acceptable online (C) plagiarism — not acceptable (D) required

Short Questions

Q1. Give two uses of computers in education and two in banking.

Q2. What is a cell in a spreadsheet? How is it named?

Q3. What is the difference between the internet and the World Wide Web?

Q4. What does a formula do in a spreadsheet? Give an example.

Q5. State two rules of good online manners.

Long Questions

Q1. Explain how word processors and spreadsheets are used in a school office, giving one example task for each.

Q2. Describe the internet and the World Wide Web, and explain how a browser, a search engine and a URL are used to find information.

> Write each answer in your own words, in full sentences. For long questions, give an introduction, the main points with examples, and a short conclusion.

Chapter 6: Impacts of Computing

Computing has changed how people learn, work, shop and talk to each other. It brings great benefits, but also risks — to privacy, health, jobs and the environment. This chapter helps you use technology wisely and responsibly.

6.1 Benefits of computing

- Communication: messages, calls and video reach people anywhere in seconds.
- Learning: lessons, books and videos are available to anyone with a connection.
- Work: many tasks are faster and more accurate; records are easy to search and share.
- Services: banking, tickets, government forms and shopping can be done from home.

6.2 Risks and challenges

- Privacy: personal information shared online can be collected, copied or misused.
- Cyberbullying: unkind messages and posts can hurt people; they should be reported, not shared further.
- Health: long screen time can strain the eyes and the back; regular breaks and good posture help.
- Misinformation: false stories spread quickly online — check a claim with a trusted source before believing or sharing it.

6.3 Digital citizenship

- A digital citizen uses technology responsibly, legally and kindly.
- Respect copyright: do not copy other people's work, photos or videos and present them as your own.
- Respect others: do not post hurtful comments or share private photos without permission.
- Follow the rules of the website or app you use, and report harmful content instead of spreading it.

6.4 Jobs and the future

- Some jobs change as computers take over routine tasks; new jobs appear in programming, data, design and support.
- Skills that stay valuable: thinking clearly, solving problems, communicating well and learning new tools.
- Automation does not remove the need for people — it changes what people do, and learning keeps you ready.
- Technology should serve people: the best use of a computer is one that helps someone learn, work or live better.

6.5 Environment and e-waste

- Making computers uses energy and materials; using them also uses electricity.
- Old devices should be repaired, reused or recycled — not thrown away with ordinary rubbish.
- Simple habits help: switch off devices when not in use, and print only when needed.
- Choosing a device that lasts, and looking after it, reduces waste.

Key terms

- Digital citizen — a responsible user of technology. Cyberbullying — using digital means to hurt or harass someone.
- Copyright — the right of a creator over their work. Misinformation — false information shared as if it were true.
- E-waste — discarded electronic devices. Privacy — control over one's personal information.

Chapter 6: Impacts of Computing — Practice Questions

Multiple-Choice Questions

Q1. Which is a benefit of computing?

(A) Faster communication (B) Less information (C) More paper use (D) Slower work

Q2. Cyberbullying should be:

(A) shared further (B) ignored and spread (C) reported, not shared (D) answered unkindly

Q3. Using another person's photo as your own breaks:

(A) privacy settings (B) copyright (C) the internet (D) a password

Q4. A good habit for eye health is to:

(A) stare without breaks (B) take regular breaks (C) sit very close (D) use full brightness

Q5. Misinformation means:

(A) true news (B) false information shared as if true (C) a private message (D) a backup

Q6. A digital citizen is someone who uses technology:

(A) responsibly and kindly (B) without any rules (C) to copy others' work (D) only for games

Q7. E-waste is:

(A) ordinary rubbish (B) discarded electronic devices (C) paper waste (D) food waste

Q8. Which skill stays valuable as jobs change?

(A) Memorising one tool (B) Clear thinking and problem-solving (C) Avoiding new tools (D) Copying others

Q9. Switching off unused devices helps to:

(A) waste energy (B) save energy (C) increase e-waste (D) slow the computer

Q10. Before sharing a surprising claim online, you should:

(A) share it at once (B) check it with a trusted source (C) add your own details (D) hide the source

Short Questions

Q1. State two benefits and two risks of computing.

Q2. What is cyberbullying, and what should you do about it?

Q3. What does it mean to be a digital citizen?

Q4. What is e-waste, and how should old devices be handled?

Q5. Why should you check a claim before sharing it online?

Long Questions

Q1. Discuss the positive and negative impacts of computing on society, giving two examples of each, and explain how a responsible user can reduce the risks.

Q2. Explain digital citizenship: what it means, why copyright and privacy matter, and how you would act as a good digital citizen online.

> Write each answer in your own words, in full sentences. For long questions, give an introduction, the main points with examples, and a short conclusion.

Chapter 7: Entrepreneurship

An entrepreneur is a person who starts a new business by spotting a problem, offering a solution, and taking a careful risk. This chapter introduces business ideas, planning, customers and the digital skills that help a small business grow.

7.1 What is entrepreneurship?

- An entrepreneur starts and runs a new business, taking a risk in the hope of earning a profit.
- Entrepreneurship creates jobs, solves problems and brings new products and services to people.
- An entrepreneur needs an idea, a plan, customers, and the habit of learning from mistakes.
- Not every business succeeds; planning and honest dealing give a new business its best chance.

7.2 Spotting an opportunity

- An opportunity is a problem people have, or a need that is not yet met — for example, students needing affordable notes, or a shop needing a simple website.
- Good ideas often come from watching everyday life and listening to what people complain about or wish for.
- Test an idea small first: ask a few people whether they would use it and what they would pay.
- A good opportunity is one where the idea is useful, people can afford it, and you can deliver it well.

7.3 Business planning basics

- A business plan states the idea, the customers, the costs, the price and how the business will reach its customers.
- Costs include what you spend (materials, tools, time); income is what customers pay; profit is income minus costs.
- Know your customer: who they are, what they need, and where to reach them.
- Keep simple records of money in and money out — a notebook or a spreadsheet is enough to start.

7.4 Digital skills for a small business

- A simple website or social media page lets customers find the business and see what it offers.
- Digital payments and online orders let customers buy without visiting in person.
- Photos, clear prices and honest descriptions build trust; fake claims destroy it.
- Computers help a small business keep records, design posters, and reply to customers quickly.

7.5 Ethics and responsibility

- An honest business gives what it promises, charges a fair price, and admits mistakes.
- Do not copy another business's name, logo or content, and do not make claims you cannot prove.
- Treat customers, workers and suppliers fairly; pay what is agreed, on time.
- A business that earns trust keeps its customers — trust is worth more than a quick profit.

Key terms

- Entrepreneur — a person who starts a new business. Profit — income minus costs. Customer — a person who buys a product or service.
- Business plan — a written plan for a new business. Opportunity — an unmet need or a problem to solve.

Chapter 7: Entrepreneurship — Practice Questions

Multiple-Choice Questions

Q1. An entrepreneur is a person who:

(A) works for a salary only (B) starts and runs a new business (C) avoids all risk (D) never plans

Q2. Profit is calculated as:

(A) costs minus income (B) income minus costs (C) income plus costs (D) price times customers

Q3. A business opportunity often starts with:

(A) a problem or unmet need (B) copying a logo (C) a fake claim (D) ignoring customers

Q4. A business plan should state:

(A) only the business name (B) the idea, customers, costs and price (C) nothing about money (D) only the logo

Q5. Testing an idea small first helps to:

(A) waste money (B) check whether people want it (C) hide the idea (D) avoid customers

Q6. Keeping records of money in and money out helps a business to:

(A) lose track (B) know its profit (C) avoid customers (D) hide costs

Q7. Which digital step helps customers find a small business?

(A) No online presence (B) A simple website or page (C) Fake reviews (D) Hidden prices

Q8. An honest business should:

(A) make claims it cannot prove (B) give what it promises (C) copy another logo (D) charge unfair prices

Q9. A customer is:

(A) a supplier (B) a person who buys a product or service (C) an employee (D) a competitor

Q10. Trust is important for a business because:

(A) it brings customers back (B) it costs nothing to lose (C) it hides mistakes (D) it replaces a plan

Short Questions

Q1. Define an entrepreneur.

Q2. What is profit? How is it calculated?

Q3. What is a business opportunity? Give an example.

Q4. Name three things a business plan should include.

Q5. Why is honesty important for a small business?

Long Questions

Q1. A student wants to start a small business selling handmade bookmarks at school. Explain how they would spot the opportunity, plan the business, set a price, and keep records.

Q2. Explain how digital skills help a small business grow, and why honest advertising and fair dealing matter for its success.

> Write each answer in your own words, in full sentences. For long questions, give an introduction, the main points with examples, and a short conclusion.

MCQ Answer Key

Answers to all multiple-choice questions, chapter by chapter.

Chapter 1	Ch 1 Q1: B · Ch 1 Q2: C · Ch 1 Q3: C · Ch 1 Q4: B · Ch 1 Q5: B · Ch 1 Q6: B · Ch 1 Q7: B · Ch 1 Q8: B · Ch 1 Q9: C · Ch 1 Q10: B
Chapter 2	Ch 2 Q1: B · Ch 2 Q2: B · Ch 2 Q3: C · Ch 2 Q4: C · Ch 2 Q5: C · Ch 2 Q6: B · Ch 2 Q7: C · Ch 2 Q8: B · Ch 2 Q9: B · Ch 2 Q10: B
Chapter 3	Ch 3 Q1: B · Ch 3 Q2: C · Ch 3 Q3: C · Ch 3 Q4: B · Ch 3 Q5: B · Ch 3 Q6: C · Ch 3 Q7: C · Ch 3 Q8: B · Ch 3 Q9: C · Ch 3 Q10: B
Chapter 4	Ch 4 Q1: B · Ch 4 Q2: A · Ch 4 Q3: C · Ch 4 Q4: B · Ch 4 Q5: C · Ch 4 Q6: B · Ch 4 Q7: B · Ch 4 Q8: B · Ch 4 Q9: B · Ch 4 Q10: C
Chapter 5	Ch 5 Q1: B · Ch 5 Q2: C · Ch 5 Q3: B · Ch 5 Q4: B · Ch 5 Q5: B · Ch 5 Q6: B · Ch 5 Q7: B · Ch 5 Q8: B · Ch 5 Q9: A · Ch 5 Q10: C
Chapter 6	Ch 6 Q1: A · Ch 6 Q2: C · Ch 6 Q3: B · Ch 6 Q4: B · Ch 6 Q5: B · Ch 6 Q6: A · Ch 6 Q7: B · Ch 6 Q8: B · Ch 6 Q9: B · Ch 6 Q10: B
Chapter 7	Ch 7 Q1: B · Ch 7 Q2: B · Ch 7 Q3: A · Ch 7 Q4: B · Ch 7 Q5: B · Ch 7 Q6: B · Ch 7 Q7: B · Ch 7 Q8: B · Ch 7 Q9: B · Ch 7 Q10: A

End of book. Good luck with your studies — revise the key terms, practise the questions again, and check the current FBISE model paper on fbise.edu.pk before your examination.