

### **About VerdGem**

VerdGem is an Education Technology venture on a mission to raise education standards across the Caribbean. Our focus is on delivering creative, regionally relevant, and multimodal learning tools designed specifically for Caribbean students.

Our Mission is to develop high-quality learning tools accessible to every Caribbean student. We believe education should be exciting, inclusive, and rooted in the realities of our region. VerdGem aims to complement traditional education by offering tools that adapt to each student's pace and learning style.

Our two flagship products are an Al-powered quiz platform and an on-demand video platform, both tailored to provide students with different modes of learning.



### **Our Al-Powered Quiz Platform**

The VerdGem Quiz Platform is a modern, web-based application designed to help students prepare for CSEC exams through interactive, personalised, and engaging practice. Built with both learners and educators in mind, our platform has a number of benefits:

**For Students:** Builds exam confidence, encourages consistent practice, and rewards progress through interactive elements.

**For Teachers:** Offers insights into student performance, allows for early intervention, and supports lesson planning with data. Also gives teachers a chance to tests students' knowledge in an engaging and interactive way.

**For Schools:** Enables evidence-based decision-making and supplements traditional teaching methods with minimal setup or cost.



## **Adding Topics and Subtopics**

You can access the quiz application at: https://quiz.verdgem.com/

Before you do anything, you'll need to sign in.

The first order of business is adding topics for your assigned subject. These topics will correlate to the different sections of the CSEC syllabus.

You can add topics from the Subject page or Topics page.

Subjects / Information Technology

### **Information Technology**





#### Description

The CSEC Information Technology (IT) subject equips students with essential digital skills needed for today's technology-driven world. It covers a wide range of topics, including computer hardware and software, programming, networking, cybersecurity, database management, and problem-solving using technology. Students develop both practical and theoretical knowledge, preparing them for careers in IT-related fields or further studies in computing. This subject fosters critical thinking, logical reasoning, and hands-on skills, ensuring that learners can confidently navigate and adapt to the ever-evolving digital landscape. Whether aspiring to be a software developer, network engineer, or IT professional, CSEC IT provides a strong foundation for future success.

#### **Topics**

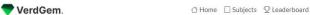
Topic Name	Questions	Actions		
Computer Fundamentals and Information Processing	261	View	Add Question	Edit
Computer Networks and Web Technologies	187	View	Add Question	Edit
Social and Economic Impact of Information and Communications Technology (ICT)	212	View	Add Question	Edit
Word-processing and Web Page Design	130	View	Add Question	Edit
Spreadsheets	224	View	Add Question	Edit
Database Management	188	View	Add Question	Edit
Problem Solving and Program Design	145	View	Add Question	Edit
Program Implementation	92	View	Add Question	Edit

Add New Topic

## **Adding Topics and Subtopics**

The next step is to divide your topics into subtopics. Subtopics allow students to access questions on a specific subtopic within the different sections of the syllabus. For example Wireless Network Technologies can be a subtopic of the Information Technology section Computer Networks and Web Technologies.

You can add subtopics from the page of a selected Topic.



Subjects / Information Technology / Computer Fundamentals and Information Processing

### **Computer Fundamentals and Information Processing**

#### Description

On completion of this Section, students should: develop an understanding of the fundamental hardware and software components and the interrelationship among them; develop expertise in evaluating computer systems; and, develop an understanding of basic information processing principles.

#### Subtopics

Subtopic Name	Questions	Actions
Types of Computers	10	View Edit
Primary Storage	0	View Edit
Secondary Storage	0	View Edit
Units of Storage	0	View Edit
IPOS Cycle	0	View Edit
Output Devices	0	View Edit
Input Devices	0	View Edit
Computer Software	0	View Edit
Data Validation & Verification	0	View Edit



## Adding Questions

Questions can be added from Subject, Topic, and Subtopic pages. Questions always correspond to the topic they are created under.

When adding questions there are a number of important fields to be filled:

- **Question Type:** Whether the question is multiple choice or long answer format
- **Subtopic:** The subtopic that the question should be grouped under. Questions can belong to multiple subtopics
- **Question:** This is the question that will be displayed to students to answer
- Question Image: An optional image that can be used as illustrations, diagrams, etc for questions
- **Difficulty Level:** Assigns a difficulty to the question as well as the number of marks for the question. Easy: 1 mark, Medium: 3 marks, Hard: 5 marks. Multiple choice questions are always set to easy.



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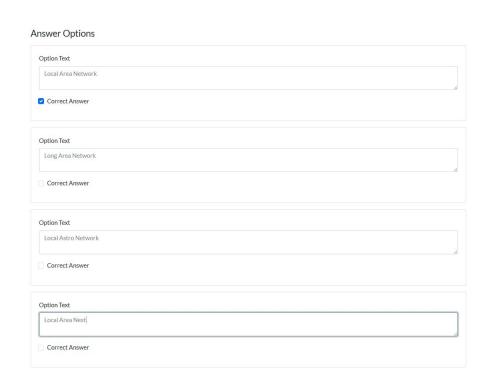
### **Adding Questions**

### Multiple Choice Fields

 Answer Options: The answer options available to students for multiple choice questions.

### Long Answer Fields

- Model Answer: An example of an answer students are expected to give for the specified question. This field is very important as it is used by the system to grade student answers.
- Key Concepts: Key concepts that the question covers
- Marking Criteria: This tells the system how to grade the student's answer. The total of all criteria must always equal the number of marks assigned to the question.



This guide helps you write effective quiz questions at different difficulty levels: Easy, Medium, and Hard. Each type serves a purpose — from reinforcing fundamentals to challenging students to think critically.

Easy Questions (1 mark)

Purpose: Test basic recall and recognition Ideal for: Definitions, acronyms, simple facts

✓ Ideal Questions: Definitions of key terms

Meaning of acronyms

One-word or short-phrase answers

Basic identification (e.g., types, categories)

 § Examples (CSEC IT):
 What does the acronym "CPU" stand for?
 → Central Processing Unit

Define the term "software".

 $\rightarrow$  Programs and operating information used by a computer.

Name one input device.

→ Mouse

Medium Questions (3 marks)

Purpose: Test understanding and ability to explain or

differentiate

Ideal for: Short explanations, comparisons, applying

basic concepts

✓ Ideal Questions:
Brief explanations (2–3 sentences)

Differences between two terms

Purpose or function of a component

Everyday application of a concept

Examples (CSEC IT):

Explain the difference between RAM and ROM.

→ RAM is temporary memory used while the computer is running, while ROM is permanent memory used to store firmware.

State two uses of a spreadsheet application in a business.

→ To manage payroll and to track inventory.

Why is data validation important in a database?

→ It ensures that only correct and reasonable data is

entered.

Hard Questions (5 marks)

Purpose: Test deep understanding, analysis, and

reasoning

Ideal for: Essay-style questions, compare & contrast,

listing, true/false, matching

Ideal Questions:

In-depth explanations (4+ sentences)

Compare and contrast two related topics

Evaluate pros/cons

Mini case scenarios

True/false with justification

Matching concepts with definitions

Examples (CSEC IT):

Compare and contrast a LAN and a WAN in terms of coverage area, cost, and example use.

→ A LAN (Local Area Network) covers a small area such as an office, is relatively inexpensive, and is used within schools. A WAN (Wide Area Network) covers large areas like cities or countries, is more costly, and is used by banks or international companies.

List three characteristics of a good password and explain why each is important.

→ Length — harder to guess; Complexity — includes symbols, numbers; Uniqueness — not reused across platforms.

True or False: The operating system is responsible for managing hardware resources. Explain your answer.

→ True. The operating system acts as a bridge between the user and hardware, handling memory, CPU, and I/O operations.

Match the following terms with their definitions:

Term	Definition		
Firewall	B		
Antivirus	A		
Cloud St	orage	_ C	_
Seconda	ry Storage		D
Primary :	Storage _	_E	

- A. Software that detects and removes malware
- B. Blocks unauthorized access to or from a private network
- C. Online storage service accessed via the Internet
- D. Computer storage that includes CD-ROMs and Hard drives
- E. Computer memory that includes RAM and ROM

Aim to create at least 100 long answer questions per topic, evenly distributed across all difficulties and subtopics created.

Also aim to create 100 multiple choice questions per topic, evenly distributed across all difficulties and subtopics created.

This helps ensure full coverage of the syllabus and a balanced set of practice opportunities for students.

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# **How Quiz Grading Works**

When students submit an answer our AI system checks their answer against the question marking criteria. The AI system also looks at the model answer to see what an appropriate answer should look like. The model answer also lets the system know how in depth the student should answer the question.

When giving feedback the AI system lets students know what they did well, as well as areas they could improve in. A final score is also given based on their performance against the marking criteria.

