



Recommended Minimum Laptop Specifications

For Computer Applications Technology (CAT), Information Technology (IT) and Robotics students

Grades 10–12: 2026

Computer Applications Technology (CAT) focuses on practical use of software like Microsoft Office (Word, Excel, PowerPoint, Access) for productivity, data handling, and basic HTML/web concepts.

Information Technology (IT) is more programming-oriented, using **Delphi 12** (Embarcadero RAD Studio) for object-oriented Pascal programming, alongside theory on hardware, networks, and databases.

Robotics: The same specifications as for CAT and/or IT. The **Arduino** and **Micro:Bit** controllers will be provided by the Centre. *Please DO NOT buy/subscribe to the Impaq Robotics module before speaking to Carin.*

Since **IMPAQ** provides **Office 365** (web/desktop apps) and **Delphi 12 at no cost**, students need a **laptop computer** (tablet/desktop and Apple/Mac not suitable) that runs these smoothly.

Delphi 12 (Only for IT) is the demanding factor—it's a full IDE that benefits from good performance during compiling, debugging, and running database-connected apps.

Software Requirements

- **Operating System:** Windows 11 (64-bit). Delphi 12 officially supports these; older versions like Windows 7 are no longer recommended or fully supported.
- **Browser:** Latest Chrome, Edge, or Firefox (for Office 365 web access and general use).
- **Other:** Stable home internet for Office 365 cloud features and school resources.

Affordable Laptop Recommendations (R4,500–R8,000) for Grades 10–12 CAT & IT Students

There are solid Windows laptop options in the R4,500–R8,000 range that can handle **Computer Applications Technology (CAT)** (Office 365 tasks like Excel, Word, Access databases) and **Information Technology (IT)** (Delphi 12 programming, compiling, debugging simple projects).

Delphi isn't extremely demanding, but it runs best with at least 8GB RAM and a decent multi-core processor to avoid frustration during multitasking or larger projects.

In this budget (as of late 2025), you'll typically get:

- 8GB RAM (minimum for smooth Delphi + browser + Office; 16GB is rarer but possible near R8,000).
- Modern Intel Core i3 (13th gen+) or AMD Ryzen 5 processor.
- 256–512GB SSD (fast boot and load times).
- Full HD 15.6" screen (great for coding and spreadsheets).
- **Computer mouse.** The touchpad is NOT recommended as some activities require fine motor coordination skills.

Priorities in this range: Look for models with upgradable RAM if possible, good keyboard/numpad (useful for Excel/Delphi), and local warranty/support.

Model/Example	Approx. Price (ZAR)	Key Specs	Why Suitable for CAT/IT?	Where to Check/Buy
HP 15s Series (e.g., AMD Ryzen 5 7520U/7430U variant)	R7,000–R8,000	Ryzen 5 (4–6 cores), 16GB RAM, 512GB SSD, 15.6" FHD, Windows 11	Excellent multitasking; 16GB RAM handles Delphi IDE + multiple tabs/projects smoothly. Strong value for programming.	Incredible Connection, Takealot, Evetech
ASUS Vivobook 15/Go 15 (e.g., Ryzen 5 7430U or Intel i3-1315U)	R6,500–R7,800	Ryzen 5 or i3 (13th gen), 8–16GB RAM, 512GB SSD, 15.6" FHD, numpad	Reliable build; Ryzen models punch above weight for compiling. Good battery (~8 hours). Popular student choice.	Takealot, Laptop Direct, Evetech
Acer Aspire 5/Lite (i3 or Ryzen 3/5 entry)	R6,000–R7,500	Intel i3 (13th gen) or Ryzen, 8GB RAM (upgradable on some), 256–	Solid for Office + basic Delphi; fast SSD. Often on specials.	Takealot, Makro, Incredible

		512GB SSD, 15.6" FHD		
Lenovo IdeaPad Slim 3 (Ryzen 5 or i5 equivalent)	R6,800–R8,000	Ryzen 5, 8–16GB RAM, 512GB SSD, 15.6" FHD	Durable, good keyboard for coding; handles school workloads well.	Evetech, Takealot

Tips depending on your budget

- **Aim for 16GB RAM if possible** (e.g., HP/ASUS Ryzen 5 models near R8,000)—it makes a big difference for Delphi debugging or running virtual DBs.
- **Avoid Celeron/N4020 models** (common under R5,000)—they'll feel sluggish with Delphi.
- **Check for specials:** Prices fluctuate; look at Takealot, Evetech, Incredible Connection, or Makro for December deals.
- **Upgrades:** Many in this range allow RAM/SSD upgrades later (e.g., add another 8GB stick for ~R500).
- **Alternatives if tighter budget:** Refurbished business-grade (e.g., Dell Latitude or HP ProBook with i5 + 16GB) from reputable sellers—often R5,000–R7,000 with warranty, and tougher build.

Looking forward to a great Cyber experience 2026!