

Laptop Computers

Laptop types

- **Notebook**

The general term for a full-sized laptop that strikes a balance between portability and functionality.

These can vary greatly in overall size and specification – processor speed, storage capacity, memory (RAM) and screen size. They can vary greatly in price from low-cost budget models to high-performance productivity and gaming laptops.
- **Ultraportable**

Thin, light laptops designed for mobility (also sometimes called a subnotebook). Maintaining a super-slim profile means they have to cut out some features such as built-in CD/DVD drive and reduce the number of connection ports.
- **Ultrabook**

A term invented by computer chipmaker Intel for a special type of ultraportable notebook (hence Ultrabook). Ultrabook must meet specific criteria for various things such as size/weight, battery life, type of chipset (including built-in security features). Among their strong points is strong security and anti-theft protection built in at the hardware level.

Although the original MacBook Air is regarded as the inspiration for the Ultrabook class, it's not actually an Ultrabook.
- **Netbook**

Small, inexpensive laptops that run off the low-powered Intel Atom processor. These have been largely phased out, to be replaced by tablets, Ultrabooks and ultraportables.
- **Chromebook**

Chromebooks run the Chrome-OS (which is based on Linux) operating system. These are designed to work primarily with web apps and data being saved to the Cloud rather than on the laptop itself. Apps need to be downloaded from the Chrome Web Store. Recent model Chromebooks can also run Android apps.

Chromebooks are popular in some schools, as many cheaper models are available and their minimal configuration offers easier centralized administration and security.
- **MacBook**

Apple's laptop computers come in two families – the ultra-thin MacBook Air, and the high-performance MacBook Pro in 13-inch and 16-inch sizes (the latter recently replacing the 15-inch size). They all run the mac-OS operating system.
- **Convertible (2-in-1)**

These combine the features of a laptop and a tablet. They're also known as 2-in-1 laptops or hybrids.

They can quickly switch between touchscreen tablet mode and traditional keyboard mode, transforming in a variety of ways, including detaching, sliding, twisting and fold-back mechanisms. Most models now use the fold-back method, though a few still have detachable screens.

- **Tablet as a laptop**

Just as convertible laptops can do double-duty as a tablet, some tablets can be used as a laptop with the addition of a detachable keyboard. Most notable for this are Windows-based tablets such as Microsoft's own Surface Pro series and smaller Surface Go, which really benefit from having a keyboard as they use the Windows 10 operating system. However, unlike a 2-in-1, they can quickly be used in tablet mode without the added weight and bulk of a keyboard.

The iPad and iPad Pro also have optional detachable keyboards and can be used as a laptop, though they use Apple's iPad OS mobile operating system and work best with apps that support laptop functionality.

Choosing the right Laptop computer

The Government organizations can select the suitable laptop computers under three levels mentioned below. The levels are categorized based on the user requirements and price.

- **Entry level**

If a Government organization require a cheap laptop for basic tasks and occasional or lighter use and are not overly concerned about performance, weight or battery life, can the Entry level laptop computers.

These low-cost laptops are relatively low-powered, but capable of most general computing tasks such as web browsing, email and general word processing. They can handle most basic multimedia tasks (e.g. standard definition video streaming) and are best suited to casual users.

- **Mid-Range**

If a user wants to take the laptop with him/her on-the-go a lot, he / she require something thin, light and easy to carry. Choose an ultraportable (including Ultrabooks).

Aimed at regular computer users, officers and students. Mid-range laptops can run most software and games, but may struggle a bit with high-end functions such as video editing and games that require fast graphics processing.

- **High-end**

If a user wants something to give all the power of a desktop computer while being transportable with relative ease, can choose High-end laptops. these laptops are for serious computer types that like to push their systems with intensive computing tasks including editing video and audio, 3D rendering and high-end games.

Specifications for Laptop Computers

Entry Level

Features	Required Specification	Bidders Compliance	
		Yes/No	If No, Bidders Response
Make & Model	(Branded)		
Country of manufacture	(Branded)		
Country of origin	(Branded)		
Form Factor	Business Laptop Computer Manufacture Confirmation must be attached)		
Chipset	Intel Integrated Chipset		
Processor	Intel® Core TM i3-10110U 2.1GHz processor (4 MB L3 cache) / AMD up to 4.1GHz /AMD Ryzen™ 3 4300U Processor 2.70GHz up to (6MB L2/L3 cache)		
Memory RAM	4 GB of single channel, DDR4 system memory Upgradable to 16 GB or Higher capacity		
Maximum RAM speed & type	2666 MHz, DDR4 or higher		
Hard Disk	256 SSD or Above		
Graphics	Intel HD Graphics / AMD Radeon™ Graphics		
Keyboard	(Specify)		
Touch Pad	Multi-gesture touchpad, supporting two-finger scroll,		
Audio Audio Integrated speakers' microphone	Integrated high definition audio Integrated internal speakers Built-in microphone		
Communications Modem Ethernet description wireless Bluetooth	WLAN: 802.11ac WPAN: Bluetooth 4.0		
Inbuilt Camera	720p HD camera		
Expansion options PC card I/O ports	SDTM Card reader Microphone / Earphone - in jack USB 2.0 port Two USB 3.0 ports HDMI® port DC-in jack for AC adapter		
Display type	14" / 15.6" TFT LCD HD Resolution		

Operating system	Windows 10 Pro / Linux / Ubuntu 18.04+		
Application Software	Sinhala and Tamil Unicode Software Commercial Anti-virus with license for 3 years		
Battery	Minimum 8 hours battery life (Specify Type / mAh / Hours)		
Security	Kensington lock slot		
Accessories Carrying case	Should be same brand		
Product certifications of the quoted Model	Energy Star or any other equal certificate to Energy Star, issued by authorized body who has the authority to do so, Documentary evidence must be provided Valid ISO 9001: 2015, & ISO 14001:2015		
Manufacture Experience	Manufacturer should have minimum of ten years' experience in manufacturing of the same brand. (Proof document should be attached)		
Bidders Experience	The bidder should have successfully sold same Similar Product for last 5years (Bidder should provide documentary evidence to support the above)		
Manufacturer Authorization Certificate	Manufacturer Authorization Certificate should be provided (Originals should be provided on request)		
Warranty	Comprehensive on-site manufacturer authorized warranty for 36 months (Labor & Parts) Excluding Consumes. Bidder or its parent company or its subsidiary should have Island wide owned branch network Documentary evidence to be provided of the following under bidders' name. (a) Address, Contact Details & Date of Commencement of each branch/regional office (Should have completed minimum of 5 years from the Date of Commencement of each ranch/regional)		
Additional Warranty Conditions	1-year warranty for Battery and Power Adapter		

Warranty Information	A sticker with -Supplier name -Contact Numbers -Date of Commissioning of Hardware -Warranty period in all Laptops		
Brochure	Supplier should provide original brochure of make/model quoted as per above specification		

Mid-Range

Features	Required Specification	Bidders Compliance	
		Yes/No	If No, Bidders Response
Make & Model	(Branded)		
Country of manufacture	(Branded)		
Country of origin	(Branded)		
Form Factor	Business Laptop Computer Manufacture Confirmation must be attached)		
Chipset	Intel Integrated Chipset		
Processor	Intel® Core™ i5-10210U 1.6GHz processor (6 MB L3 cache, up to 4.2GHz / AMD Ryzen™ 5 4500U Processor 2.30GHz up to 4.0GHz (11MB L2/L3 Cache)		
Memory RAM	8 GB of single channel, DDR4 system memory Upgradable to 16 GB or Higher capacity		
Maximum RAM speed & type	2666 MHz, DDR4 or higher		
Hard Disk	512GB SSD or Above		
Graphics	Intel UHD Graphics/ AMD Radeon™ Graphics		
Keyboard	(Specify)		
Touch Pad	Multi-gesture touchpad, supporting two-finger scroll,		
Audio Audio Integrated speakers' microphone	Integrated high definition audio Integrated internal speakers Built-in microphone		
Communications Modem Ethernet description wireless Bluetooth	WLAN: 802.11ac WPAN: Bluetooth 4.0		
Inbuilt Camera	720p HD camera		
Expansion options PC card I/O ports	SDTM Card reader Microphone / Earphone-in jack USB 2.0 port Two USB 3.0 ports HDMI® port DC-in jack for AC adapter		
Display type	14"/ 15.6" TFT LCD HD Resolution		
Operating system	Windows 10 Pro / Linux / Ubuntu 18.04+		

Application Software	Sinhala and Tamil Unicode Software Commercial Anti-virus with license for 3 years		
Battery	Minimum 8 Hours battery life (Specify Type / mAh / hours)		
Security	Kensington lock slot		
Accessories Carrying case	Should be same brand		
Product certifications of the quoted Model	Energy Star or any other equal certificate to Energy Star, issued by authorized body who has the authority to do so, Documentary evidence must be provided Valid ISO 9001: 2015, & ISO 14001:2015		
Manufacture Experience	Manufacturer should have minimum of ten years' experience in manufacturing of the same brand. (Proof document should be attached)		
Bidders Experience	The bidder should have successfully sold same Similar Product for last 5years (Bidder should provide documentary evidence to support the above)		
Manufacturer Authorization Certificate	Manufacturer Authorization Certificate should be provided (Originals should be provided on request)		
Warranty	Comprehensive on-site manufacturer authorized warranty for 36 months (Labor & Parts) Excluding Consumes. Bidder or its parent company or its subsidiary should have Island wide owned branch network Documentary evidence to be provided of the following under bidders' name. (a) Address, Contact Details & Date of Commencement of each branch/regional office (Should have completed minimum of 5 years from the Date of Commencement of each ranch/regional)		
Warranty Information	A sticker with -Supplier name -Contact Numbers -Date of Commissioning of Hardware -Warranty period in all Laptops		
Brochure	Supplier should provide original brochure of make/model quoted as per above specification		

High-end

Features	Required Specification	Bidders Compliance	
		Yes/No	If No, Bidders Response
Make & Model	(Branded)		
Country of manufacture	(Branded)		
Country of origin	(Branded)		
Form Factor	Business Laptop Computer (Manufacture Confirmation must be attached)		
Chipset	Intel Integrated Chipset		
Processor	Intel® Core TM i7-10510U 1.8GHz processor (8 MB L3 cache) / AMD Ryzen™ 7 4700U Processor 2.00GHz up to 4.1GHz (12MB L2/L3 Cache)		
Memory RAM	16 GB of DDR4 system memory Upgradable to 32 GB or Higher capacity		
Maximum RAM speed & type	2666 MHz, DDR4 or higher		
Hard Disk	1TB SSD or Above		
Graphics	Intel HD Graphics / AMD Radeon™ Graphics		
Keyboard	(Specify)		
Touch Pad	Multi-gesture touchpad, supporting two-finger scroll		
Audio Audio Integrated speakers' microphone	Integrated high definition audio Integrated internal speakers Built-in microphone		
Communications Modem Ethernet description wireless Bluetooth	WLAN: 802.11ac WPAN: Bluetooth 4.0		
Inbuilt Camera	720p HD camera		
Expansion options PC card I/O ports	SDTM Card reader Microphone / Earphone jack USB 2.0 port Two USB 3.0 ports HDMI® port DC-in jack for AC adapter Fingerprint Reader		
Display type	14"/15.6" TFT LCD HD Resolution		

Quality/Stability and reliability tests of the Product quoted	The quoted product should possess test reports of the following, Spill-resistant keyboard to Provides protection against water spillage. (Should provide lab test as proof)		
Operating system	Windows 10 Pro / Linux / Ubuntu 18.04+		
Application Software	Sinhala and Tamil Unicode Software Commercial Anti-virus with license for 3 years		
Battery	Minimum 8 Hours battery life (Specify Type / mAh / Hours)		
Security	Kensington lock slot		
Accessories Carrying case	Should be same brand		
Product certifications of the quoted Model	Energy Star or any other equal certificate to Energy Star, issued by authorized body who has the authority to do so, Documentary evidence must be provided Valid ISO 9001: 2015, & ISO 14001:2015		
Manufacture Experience	Manufacturer should have minimum of ten years' experience in manufacturing of the same brand. (Proof document should be attached)		
Bidders Experience	The bidder should have successfully sold same Similar Product for last 5 years (Bidder should provide documentary evidence to support the above)		
Manufacturer Authorization Certificate	Manufacturer Authorization Certificate should be provided (Originals should be provided on request)		

Warranty	<p>Comprehensive on-site manufacturer authorized warranty for 36 months (Labor & Parts) Excluding Consumes.</p> <p>Bidder or its parent company or its subsidiary should have Island wide owned branch network</p> <p>Documentary evidence to be provided of the following under bidders' name.</p> <p>(a) Address, Contact Details & Date of Commencement of each branch/regional office (Should have completed minimum of 5 years from the Date of Commencement of each ranch/regional)</p>		
Warranty Information	<p>A sticker with</p> <ul style="list-style-type: none"> -Supplier name -Contact Numbers -Date of Commissioning of Hardware -Warranty period <p>In all Laptops</p>		
Brochure	<p>Supplier should provide original brochure of make/model quoted as per above specification</p>		

Specifications for Chromebook / Notebook

Chromebook

Feature	Required Specification	Bidders Compliance	
		Yes/No	If 'No' Bidders Response
Brand	(Specify)		
Model	(Specify)		
Country of Origin	(Specify)		
Country of Manufacture	(Specify)		
Form Factor	Tab Device		
Processor	2.0 GHz base speed per core in at least 4 cores		
Storage	32 GB eMMC upgrade up to or Higher		
RAM	Minimum 4 GB		
Display	Capacitive touch screen, Scratch resistant glass Convertible to 360°		
Display size	9" Display with IPS technology 2048x1536 LED – backlit touch or above		
I/O Port	1x USB C-Type		
Web Cam	HD Web cam Front & Rear (2MP/5MP) or higher		
Stylus Pen	EMR Technology supported stylus pen		
OS	Chrome OS		
Communication	Wi-Fi 802.11n, Bluetooth,		
Sound	2x Built in stereo speaker, inbuilt microphone		
Accessories	Battery charger with cable, original box and manuals must be provided.		
Casing	Carrying case same brand		
Warranty	Comprehensive on-site manufacturer authorized warranty for 12 months (Labor & Parts) Excluding Consumes. Bidder or its parent company or its subsidiary should have Island wide owned branch network Documentary evidence to be provided of the following under bidder's name. (a) Address, Contact Details & Date of Commencement of each branch/regional office (Should have completed minimum of 5 years from the Date of Commencement of each ranch/regional)		
Average battery life	At least 8 hours		
Product certification	FCC or CE (the bidder should possess a valid product certification)		
Other requirements	A sticker with -Supplier name		

	<ul style="list-style-type: none"> -Contact Numbers -Date of Commissioning of Hardware -Warranty period In all Chromebooks.		
Service Provider	Manufacturer Authorization Certificate should be provided (Originals should be provided on request)		

Notebook

Feature	Minimum Requirements	Bidders Compliance	
		Yes/No	If No, Bidders Response
Brand	(Specify)		
Model	(Specify)		
Country of Origin	(Specify)		
Country of Manufacture	(Specify)		
Form Factor	Business Note Book		
Processor	2.4 GHz base speed per core in at least 4 cores		
Storage	64 GB eMMC upgrade up to or Higher		
RAM	Minimum 4 GB upgradable up to 8GB		
Display size	Diagonal 13"-14 " or Higher FHD scratch proof Touch Screen		
I/O Port	1x USB A Type & 1x USB C-Type		
Web Cam	HD Web cam		
OS	Chrome OS		
Communication	Wifi 802.11n, Bluetooth, Nano SIM slot x 1 (For 3G/4G LTE)		
Sound	2x Built in stereo speaker, inbuilt microphone		
Accessories	Battery charger with cable, original box and manuals must be provided.		
Casing	Carrying case same brand		
Quality/Stability and reliability tests	Keyboard-switch life Spill-resistant keyboard. Provides protection against at least up to 300 ml of water spillage. Free drop, Hard Disk protection for Shock and vibration		
Warranty	Comprehensive on-site manufacturer authorized warranty for 36 months (labour and parts). Bidder or its parent company or its subsidiary should have Island wide owned branch network Documentary evidence to be provided of the following under bidder's name. (a) Address, Contact Details & Date of Commencement of each branch/regional office (Should have completed minimum of 5 years from the Date of Commencement of each ranch/regional) (b) Copies of the Deed/Lease/Rent Agreement,		

	payment of local taxes, electricity & telephone bills etc. of each branch/regional office		
Average battery life	At least 8 hours		
Product certification	FCC or CE (the bidder should possess a valid product certification)		
Other requirements	A sticker with -Supplier name -Contact Numbers -Date of Commissioning of Hardware -Warranty period In all Notebooks.		
Service Provider	Manufacturer Authorization Certificate should be provided (Originals should be provided on request)		

Content References:

- <https://byte-notes.com>
- <https://pcpartpicker.com>
- <https://www.choice.com.au>
- <https://www.cnet.com>
- <http://www.globusinfocom.com>
- <https://www.icta.lk>
- <https://www.itbusiness.ca>
- <https://www.pcworld.com>
- <https://www.streetdirectory.com>