

Explaining specification of a computer

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Q. A laptop has the Following specification: core i3 Intel inside at 1.2 GHz at 64-bit processor, 3MB cache Memory, 6GB RAM, 1TB internal hard disk, webcam, 10/100/1000 LAN port, Wi-Fi, Bluetooth, 11 inch screen, 6battery cell, windows 8 starter, A. Explain the meaning of each specification

Core i3 Intel inside Core i3 Intel processor inside means, that the laptop has been fitted with 3 microprocessors hence the name i3. The laptop has more processing speed compared to previous processors like 4004, 8008, 8088, n x86 series, centrino, Pentium series, etc 1.2 GHz

Laptops with processing speed of 1.2 GHz means that its clock speed is 1.2 gigabytes per second that is how much instruction that can be carried out in a second. In our case the laptop can carry out 12 million commands in one second. 64-bit Systems

64-bit means that it can handle twice as many bits per clock cycle than 32-bit processor. A 64-bit system can access far more RAM than the 4GB of the 32-bit systems. A 64-bit system can access 17.2 billion gigabytes of memory. This is way ahead of the requirements of present day hardware and software applications, and means that the devices connected to the system are not using memory that the operating system would ordinarily use. Essentially, 64-bit systems are faster than their 32-bit counterparts.

3MB cache memory So, what that 3MB does, is that it gives a bit of extra space for the CPU to retrieve information. Itself being right next (physically glued) to the CPU enhance the performance of the Computer... marginally. They are "future-proofed" for a long time to come.

6GB RAM Random-access memory (RAM) is a form of computer data storage. A random-access device allows stored data to be accessed directly in any random order. In contrast, other data storage media such as hard disks, CDs, DVDs and magnetic tape, as well as early primary memory types such as drum memory, read and write data only in a predetermined order, consecutively, because of mechanical design limitations. Therefore the time to access a given data location varies significantly depending on its physical location.

1 TB hard disk

A 1Tb hard drive is a hard drive with a storage capacity of 1024 GB. 1Tb refers to one terabyte, which is the equivalent of 1, 099, 511, 627, 776 bytes (2^{40} bytes). A hard drive is a device in the computer that stores computers files and programs.

Webcam

A camera that is attached to someone's computer. This camera takes pictures every few minutes and updates those pictures to a Web page where everyone can watch.

10/100/100 LAN port

10/100/1000 Mbps is the term used to refer to network devices which support three different levels of speed on the same port. When the link between two devices is established, it is automatically negotiated which speed to run the devices at. It is important to note that there are many different factors that can affect the speed gained on network equipment, so devices capable of running at 1000 Mbps will not always do so. Most equipment these days does at least 10/100 Mbps; it may be some time before 10/100/1000 equipment becomes common place.

WI FI " Wi-Fi" is a type of wireless networking protocol that allows devices to communicate without cords or cables. Wi-Fi is technically an industry term

that represents a type of wireless local area network (LAN) protocol based on the 802.11 IEEE network standards. It's the most popular means of communicating data wirelessly, within a fixed location, today. Bluetooth

Bluetooth is a wireless technology standard for exchanging data over short distances (using short-wavelength radio transmissions in the ISM band from 2400–2480 MHz) from fixed and mobile devices, creating personal area networks (PANs) with high levels of security. Created by telecom vendor Ericsson in 1994, it was originally conceived as a wireless alternative to RS-232 data cables. It can connect several devices, overcoming problems of synchronization. 6 battery cell

The laptop that has a 6 cell battery can only last at least 5 hours without, listening to music and turning up the brightness of the screen. When it has high volume and brightness it last for 3 hours.

Windows 8 starter Windows 8 is designed for touch screen PCs where users gesture on their vertical monitor screens, a contrast to Apple's strategy of restricting gestures to horizontal touch surfaces such as a touch pad.

Question Q. Compare 64-bit and 32-bit processors in terms of performance

64-Bit Computing—Pros

- More processing power: In very basic terms, 64-bit means that it can handle twice as many bits per clock cycle. For more on the technicalities of the architecture, we recommend.
- More memory: The 32-bit consumer version of Windows is only capable of addressing 3 to 3.5 GB of RAM; therefore, when you use more than 4 GB, the additional RAM goes to waste. Hitting the 3 to 3.5 GB limit only occurs if you work with several memory-hungry programs at the same time.
- Performance advantage:

Practically speaking, applications can make use of the 64-bit architecture to process huge data operations more quickly. This is especially important with advanced programs, such as video editing suites, games, or encryption software.

- More security: The 64-bit versions of Windows Vista and 7 contain kernel patch protection which prevents malicious programs from changing the Windows kernel. The operating systems also boast a data execution prevention which uses a special processor feature to prevent an application from running code from a memory region where it's not supposed to run. Overall, the 64-bit edition is more secure than its 32-bit counterpart.