**MIS 105 FINAL LECTURES SET 2 MzF**

(These lecture sheets continue from SET 1…)

**The different screens/output devices**

**PLASMA screens**

Plasma screen technology is based loosely on the fluorescent light bulb. The display itself consists of cells. Within each cell two glass panels are separated by a narrow gap in which neon-xenon gas is injected and sealed in plasma form during the manufacturing process. The gas is electrically charged at specific intervals when the Plasma set is in use. The charged gas then strikes red, green, and blue phosphors, thus creating a television image. Each group of red, green, and blue phosphors is called a pixel (picture element).

*Although Plasma television technology eliminate the need for the bulky picture tube and electron beam scanning of traditional televisions, because it still employs the burning of phosphors to generate an image, Plasma televisions still suffer from some of the drawbacks of traditional televisions, such as heat generation and screen-burn of static images.*

**LCD screens**

LCD panels are made of two layers of transparent material, which are polarized, and are "glued" together. One of the layers is coated with a special polymer that holds the individual liquid crystals. Current is then passed through individual crystals, which allow the crystals to pass or block light to create images. LCD crystals do not produce their own light, so an external light source, such as florescent bulb is needed for the image created by the LCD to become visible to the viewer.

Unlike standard CRT and Plasma televisions, since there are no phosphors that light up, less power is needed for operation and the light source in an LCD TV generates less heat than a Plasma or traditional television. Also, because of the nature of LCD technology, there is no radiation emitted from the screen itself.

**LED screens**

It is important to note that the LED designation refers to the backlight system used in some newer LCD Televisions, not the chips that produce the image content.

LCD chips and pixels do not produce their own light. In order for an LCD television to produce a visible image the LCD's pixels have to be "backlit". LED TVs are still LCD TVs. It is just that these new sets use LED backlights rather than the fluorescent-type backlights used in most other LCD TVs. In other words, LED TVs should actually be labeled LCD/LED TVs.

3D screens - stereoscopic technology - The technology behind 3DTV is to display to images, one for each eye.

**Core i3, Core i5, Core i7 — the difference in a nutshell**

If you want a plain and simple answer, then generally speaking, Core i7s are better than Core i5s, which are in turn better than Core i3s. Nope, Core i7 does not have seven cores nor does Core i3 have three cores. The numbers are simply indicative of their relative processing powers.

Their relative levels of processing power are also signified by their Intel Processor Star Ratings, which are based on a collection of criteria involving their number of cores, clockspeed (in GHz), size of cache, as well as some new Intel technologies like Turbo Boost and Hyper-Threading.

Core i3s are rated with three stars, i5s have four stars, and i7s have five. If you’re wondering why the ratings start with three, well they actually don’t. The entry-level Intel CPUs — Celeron and Pentium — get one and two stars respectively.



Note: Core processors can be grouped in terms of their target devices, i.e., those for laptops and those for desktops. Each has its own specific characteristics/specs.

The more cores there are, the more tasks (known as threads) can be served at the same time. The lowest number of cores can be found in Core i3 CPUs, i.e., which have only two cores. Currently, all Core i3s are dual-core processors.

Currently all Core i5 processors, except for the i5-661, are quad cores in Australia. The Core i5-661 is only a dual-core processor with a clockspeed of 3.33 GHz. Remember that all Core i3s are also dual cores. Furthermore, the i3-560 is also 3.33GHz, yet a lot cheaper.