Taller de Lectocomprensión y Traducción en Inglés

MODELO DE EXAMEN FINAL REGULAR - B

MAGNETIC DISKS

A magnetic disk consists of one or more aluminium platters with a magnetizable coating. Originally, these platters were as much as 50 cm in diameter, but at present they are typically 3 to 12 cm, with disks for notebook computers already under 3 cm and still shrinking. A disk head containing an induction coil floats just over the surface, resting on a cushion of air (except for floppy disks, where it touches the surface). When a positive or negative current passes through the head, it magnetizes the surface just beneath the head, aligning the magnetic particles facing left or facing right, depending on the polarity of the drive current. When the head passes over a magnetized area, a positive or negative current is induced in the head, making it possible to read back the previously stored bits. Thus, as the platter rotates under the head, a stream of bits can be written and later read back.

The circular sequence of bits written as the disk makes a complete rotation is called a *track*. Each track is divided up into fixed-length sectors, typically containing 512 data bytes, preceded by a preamble that allows the head to be synchronized before reading or writing. Following the data, there is an *Error-Correcting Code* (ECC), either a *Hamming Code*, or more commonly, a code that can correct multiple errors called a *Reed Solomon Code*. Between consecutive sectors, there is a small intersector gap.

A. Lea el texto con atención y complete las siguientes ideas

1. El tamaño de los platillos actuales es ……, algunos incluso… ……., a diferencia de los primero platillos que …….. …….. .

2. La superficie del disco se magnetiza cuando ……..……. Simultáneamente, las partículas magnéticas ……..…….. según la polaridad de la corriente.

3. Llamamos pista a …….. ……. . Sectores de ……. componen cada pista.

4. Existen distintos tipos de códigos para …… …….. . El más común es el…… que sirve para…… ……..…….

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B. Traduzca el siguiente texto.

All disks have movable arms that are capable of moving in and out different radial distances from the spindle about which the platter rotates. At each radial distance, a different track can be written. The tracks are thus a series of concentric circles about the spindle. The width of a track depends on how large the head is and how accurately the head can be positioned radially. With current technology, disks have between 800 and 20000 tracks per centimeter, giving track widths in the 5-to-10-micron range (1 micron = 1/1000 mm). It should be noted that a track is not a physical groove in the surface, but simply an annulus (ring) of magnetized material, with small guard areas separating it from the tracks inside and outside it.

The linear bit density around the circumference of the track is different from the radial one. It is determined largely by the purity of the surface and air quality.

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