✹ **Lea el texto con atención y responda las siguientes preguntas en español, tratando de usar sus palabras.**

An Introduction to RFID Technology

Radio Frequency Identification Technology (RFID) has moved from obscurity into main stream applications that help speed the handling of manufactured goods and materials. Barcode is still the dominant player in supply chain industries and departmental stores. However, RFID is replacing barcode technology and enjoys the major advantage of being independent of line of sight problems and scanning the objects from a distance. It offers the promise of reduced labor levels, enhanced visibility, and improved inventory management. RFID tags have a memory capacity of 16 - 64 Kbytes which is far more than the barcodes (1 - 100 bytes) and can store additional data such as manufacturer name and product specifications.

The initial step of RFID was during World War II, when the British used it to identify whether planes belonged to "friend or foe". Some technical problems resulted in the gunning down of allied planes and since then the use of RFID was limited to Defense and armed forces industries due to the cost factors. New advancements in science and technology have enabled usage in commercial applications. Large institutions, such as the US Department of Defense, have since implemented RFID which is now spreading to other organizations and industries. Walmart is the second biggest user of RFID and investing significant resources to develop its applications.

Security problems still prevailing about RFID technology is the fear that people can easily build RFID readers with lower costs and can read data from an RFID chip without knowledge and maybe even alter the data. For example, someone could use the RFID reader on an inexpensive product and upload the data to a chip that is on an expensive product, thereby getting the latter for a lower price. Another example is about retrieving data from unsecured RFID enabled mobiles.

RFID has some **advantages** which can be briefly explained as follows:

- Reader can read and write data to RFID tags without direct contact or line of sight problem.
- Data from the multiple RFID tags are accessed by the reader by radio waves.
- No maintenance costs. RFID can work under different environments and can be used effectively for over 10 years.
- Fast read and write with the time taken for read/write being a few milliseconds.
- Modern RFID tags are made with very good memory capacities ranging from 16 - 64 Kbytes which is many times more than a typical barcode.
- RFID tags can work with GPRS and have been used for tracking.
- RFID tags can also integrate with other technologies. For example, they are used with wireless sensor networks for better connectivity.

Applications of RFID

RFID applications are very broad and open in nature. For example, RFID is used as a medium for numerous tasks including managing supply chains, tracking livestock, preventing counterfeiting, controlling building access, supporting automated checkout etc.

Glosario: GPRS=El servicio general de paquetes vía radio, en inglés: General Packet Radio Service.

1. ¿Cuáles son las ventajas de la *RFID* respecto del código de barras?
2. ¿Qué problemas presentó el uso de la identificación por radiofrecuencia durante la Segunda Guerra Mundial?
3. ¿Es la tecnología RFID segura en la actualidad? Explique

4. Mencione tres características de las etiquetas RFID.
5. ¿Cuáles son los usos más comunes de las etiquetas RFID?

✹ **Complete con información del texto <u>que no haya mencionado</u> en el punto anterior. Use su propia redacción.**

1. Esta tecnología asegura reducir .....

..... .

2. En cuanto a la capacidad de almacenamiento, ...

..... .

3. En la actualidad, el código de barras sigue .....

..... .

✹ **Traducir**

Applications of RFID (Cont.)

Today technology has transformed into human implantation of RFID tags. RFID based wristbands and clothes embedded with RFID tags are used to track prisoners. The RFID tags are also used in the health care industry. An RFID tag can be used to store the patient's medical history. RFID tag is scanned each time to know the developments and changes of the patient's health condition and medication. RFID tags can also be used in airline industry to track the baggage of the passengers. Walmart is conducting trials to explore a cart integrated with an RFID reader and a wireless mobile computer authorized to make payments as customers add items to the cart.