LVE 2 ANG

BREVET DE TECHNICIEN SUPERIEUR

SESSION 2001

EPREUVE DE LANGUE VIVANTE

GROUPE 9

ANGLAIS

Durée : 2 heures

SPECIALITES	COEFFICIENTS
DOMOTIQUE	1
FLUIDES-ENERGIES-ENVIRONNEMENTS	1
INFORMATIQUE INDUSTRIELLE	2

L'USAGE D'UN DICTIONNAIRE BILINGUE EST AUTORISÉ

Technology leads the way

More and more cars today know their whereabouts exactly. What's more, they have an accurate idea of where they're supposed to be going as well. That's because they've been fitted with satellite navigation systems that combine the wizardry of an on-board computer with information received from a network of global positioning satellites up in space.

The on-board computer needs a minimum of three different signals in order to know its position in two dimensions and a minimum of four to give three-dimensional information. It also uses ABS wheel speed sensors and a built-in gyroscope to determine how far the car has travelled and its present direction. It's then possible for a system to pinpoint the car's position to within a few metres.

Today's computers usually make a good common sense job of correcting any obvious errors. For example, if the ABS wheel speed sensors tell the system the car's travelling at 70mph, then it would typically realise that the car will be on a motorway rather than in the river next to it.

Once your system's fully fired up and knows where you are, it will plan what it thinks is the best route for you, using mapping supplied on a CD-ROM. It will provide guidance to your destination using either visual or spoken commands or a combination of both. Most systems will also point out landmarks along the way, as well as informing you as to where you'll find a hotel, restaurant or petrol station.

The latest development in satnav systems is the inclusion of a dynamic element to the calculation. In other words, not only will your computer calculate a route for you, it will also take into account the current traffic situation on the road network to offer a journey that's free of hold-ups. Information is passed to the vehicle computer either through current traffic messages relayed by the Radio Sata System, or through the short message service of cellular phone networks.

Information journey is presented to the driver both via a central colour console and a voice computer. Voice messages are issued in good time before each cross-road or possible turn and consist of carefully sequenced recommendations.

To conclude – taking everything into account – is it worth having an in-built navigation system ? They will certainly come into their own when you're trying to find your way through unknown territory, though experience shows they will make mistakes. At the moment they are in the early days of linking to traffic jam avoidance tools, but technology is moving ahead quickly and there are some exciting announcements expected later this year which will take it a stage further. Who knows, there may never be a reason to get lost again.

Abridged from ***The Herald***, August 8, 2000.

1. **Rédiger en français** un compte rendu de texte comportant 200 mots (+ ou - 10 %). (7 points)

2. **Traduire en français** de la ligne 10 à la ligne 16 (« Today's computers… » → « …a combination of both ») (6 points)

3. **Expression personnelle en anglais** (120 mots environ)
« Technology is moving ahead quickly » : In your opinion, in what domains and in what ways could vehicles and their drivers benefit from technological advances ? (7 points)