8 **UNIT 1** Computer Users

SPECIALIST READING

A Find the answers to these questions in the following text.

1 Name some types of devices that use 'computers on a chip'.

medical equipment, home appliances, cars and toys

2 What uses of handheld computers are mentioned in the text?

collect data from a customer site, to generate forms ...

3 What are the benefits of using computers with the following items?
   a Security systems *safer environments*
   b Cars *energy efficiency*
   c Phones *call forwarding, monitoring an answering*

4 What smart devices are mentioned in the text? *cars, phones, security systems, smart house*

5 What are smart cards used for? *store information*

6 What are the advantages of multimedia? *Is used for education and entertainment*

7 What can medical expert systems do? *pinpoint a patient's illness, suggest further test*

8 How can computers help the disabled? *comunicate eficiently*

9 What types of computing systems are made available to people in remote locations using electronic classrooms or boardrooms? *Distabce learning and videoconferencing*

10 What aspects of computing can people power determine? *They take important desitions about the software, hardware and connectivity*

Computers Make the World Smaller and Smarter

The ability of tiny computing devices to control complex operations has transformed the way many tasks are performed, ranging from scientific research to producing
5 consumer products. Tiny 'computers on a chip' are used in medical equipment, home appliances, cars and toys. Workers use handheld computing devices to collect data at a customer site, to generate forms, to control
10 inventory, and to serve as desktop organisers.

Not only is computing equipment getting smaller, it is getting more sophisticated. Computers are part of many machines and devices that once required continual human
15 supervision and control. Today, computers in security systems result in safer environments, computers in cars improve energy efficiency, and computers in phones provide features such as call forwarding, call monitoring, and
20 call answering.

These smart machines are designed to take over some of the basic tasks previously performed by people; by so doing, they make life a little easier and a little more pleasant.
25 Smart cards store vital information such as health records, drivers' licenses, bank balances, and so on. Smart phones, cars, and appliances with built in computers can be programmed to better meet individual needs.
30 A smart house has a built-in monitoring system that can turn lights on and off, open and close windows, operate the oven, and more.

With small computing devices available for
35 performing smart tasks like cooking dinner, programming the DVD recorder, and controlling the flow of information in an organization, people are able to spend more time doing what they often do best – being creative. Computers
40 can help people work more creatively.

Multimedia systems are known for their educational and entertainment value, which we call 'edutainment'. Multimedia combines

text with sound, video, animation, and
graphics, which greatly enhances the
interaction between user and machine and
can make information more interesting and
appealing to people. Expert systems software
enables computers to 'think' like experts.
Medical diagnosis expert systems, for
example, can help doctors pinpoint a
patient's illness, suggest further tests, and
prescribe appropriate drugs.

Connectivity enables computers and software
that might otherwise be incompatible to
communicate and to share resources. Now
that computers are proliferating in many
areas and networks are available for people
to access data and communicate with others,
personal computers are becoming
interpersonal PCs. They have the potential to
significantly improve the way we relate to
each other. Many people today telecommute –
that is, use their computers to stay in touch
with the office while they are working at
home. With the proper tools, hospital staff
can get a diagnosis from a medical expert
hundreds or thousands of miles away.
Similarly, the disabled can communicate more
effectively with others using computers.

Distance learning and videoconferencing are
concepts made possible with the use of an
electronic classroom or boardroom accessible
to people in remote locations. Vast databases
of information are currently available to users
of the Internet, all of whom can send mail
messages to each other. The information
superhighway is designed to significantly
expand this interactive connectivity so that
people all over the world will have free
access to all these resources.

People power is critical to ensuring that
hardware, software, and connectivity are
effectively integrated in a socially responsible
way. People – computer users and computer
professionals – are the ones who will decide
which hardware, software, and networks
endure and how great an impact they will
have on our lives. Ultimately people power
must be exercised to ensure that computers
are used not only efficiently but in a socially
responsible way.

[Adapted from 'Computing in the Information Age', 2nd edition,
Nancy Stern & Robert A. Stern, (Wiley), pages 19–22]

B Re-read the text to find the answers to these questions:

1 Match the terms in Table A with the statements in Table B.

Table A

a	Edutainment
b	Multimedia
c	Expert system
d	Telecommute
e	Information superhighway

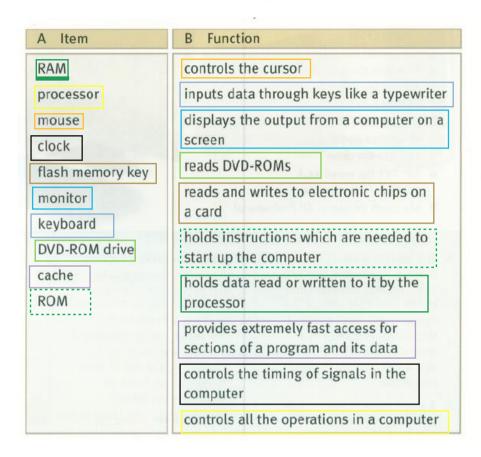**Table B**

i	c	Software that enables computers to 'think' like experts
ii	d	Use computers to stay in touch with the office while working at home
iii	e	Internet system designed to provide free, interactive access to vast resources for people all over the world
iv	a	Multimedia materials with a combination of educational and entertainment content
v	b	A combination of text with sound, video, animation, and graphics

2 Mark the following statements as True or False:

a T Desktop organisers are programs that require desktop computers.

b T Computers are sometimes used to monitor systems that previously needed human supervision.

c T Networking is a way of allowing otherwise incompatible systems to communicate and share resources.

d F The use of computers prevents people from being creative.

e F Computer users do not have much influence over the way that computing develops.

2 What do these abbreviations mean? Use the Glossary if necessary.

1 CD-ROM
2 TFT
3 MB
4 GHz
5 FSB
6 SDRAM
7 XGA

A Item	B Function
RAM	controls the cursor
processor	inputs data through keys like a typewriter
mouse	displays the output from a computer on a screen
clock	reads DVD-ROMs
flash memory key	reads and writes to electronic chips on a card
monitor	holds instructions which are needed to start up the computer
keyboard	holds data read or written to it by the processor
DVD-ROM drive	provides extremely fast access for sections of a program and its data
cache	controls the timing of signals in the computer
ROM	controls all the operations in a computer

Use prepositions: BETWEEN, FROM, ALONG, ONTO, INSIDE, ACROSS, INTO.

6 Complete each sentence using the correct preposition.

1 The CPU is a large chip .... the computer.
2 Data always flows .... the CPU .... the address bus.
3 The CPU can be divided .... three parts.
4 Data flows .... the CPU and memory.
5 Peripherals are devices .... the computer but linked .... it.
6 The signal moves .... the VDU screen .... one side .... the other.
7 The CPU puts the address .... the address bus.
8 The CPU can fetch data .... memory .... the data bus.