LỜI NÓI ĐẦU

Công nghệ thông tin từ lâu đã đóng vai trò quan trọng trong cuộc sống của chúng ta. Việc dạy và học Tiếng Anh Công nghệ thông tin tại Học viện công nghệ Bưu chính viễn thông từ lâu đã được quan tâm và phát triển. Tiếp theo cuốn giáo trình Tiếng Anh công nghệ thông tin đã và đang được dạy và học tại Học viện, cuốn sách Hướng dẫn học Tiếng Anh công nghệ thông tin dùng cho Hệ đào tạo từ xa đã được ra đời nhằm mục đích giúp học viên có thể tự học tập tốt hơn.

Cuốn sách cũng được hình thành dựa trên sườn của cuốn giáo trình gốc 10 bài gồm các hướng dẫn cụ thể từ mục từ mới, ý chính của bài khoá, phần dịch, ngữ pháp xuất hiện trong bài học. Ngoài ra, để giúp học viên có cơ hội tự trau dồi vốn từ vựng và hoàn cảnh giao tiếp chuyên nghiệp hơn trong lĩnh vực Công nghệ thông tin, nhóm tác giả còn dành riêng một mục Hội thoại ở cuối của mỗi bài học. Kèm theo phần nội dung hướng dẫn dạy và học cho 10 bài, các bạn học viên còn có thể tự luyện tập củng cố các kiến thức học được trong 10 bài qua việc luyện tập làm các bài tập và so sánh kết quả ở phần đáp án.

Cuốn sách lần đầu ra mắt không khỏi có nhiều khiếm khuyết, rất mong nhận được sự đóng góp ý kiến của độc giả và học viên gần xa.

Chúng tôi xin chân thành cám ơn các bạn đồng nghiệp cũng như Ban lãnh đạo Học viện và Trung tâm Đào tạo Bưu chính viễn thông I đã tạo điều kiện giúp đỡ để chúng tôi có thể hoàn thành tốt cuốn sách hướng dẫn học tập này.

Xin trân trọng cám ơn.

NHÓM TÁC GIẢ

UNIT 1: THE COMPUTER

I. MỤC ĐÍCH BÀI HỌC

Trong bài này chúng ta sẽ học:

- Từ vựng chuyên ngành liên quan trong bài.
- Nắm được ý chính của bài khoá.
- Làm quen với cách liên kết và bố cục của một đoạn văn.
- Luyện tập kỹ năng nói qua tình huống hội thoại trong bài.

II. HƯỚNG DẪN CỤ THỂ

1. Từ vựng chuyên ngành

Accumulator	(n)	Tổng
Addition	(n)	Phép cộng
Address	(n)	Địa chỉ
Appropriate	(a)	Thích hợp
Arithmetic	(n)	Số học
Capability	(n)	Khả năng
Circuit	(n)	Mạch
Complex	(a)	Phức tạp
Component	(n)	Thành phần
Computer	(n)	Máy tính
Computerize	(v)	Tin học hóa
Convert	(v)	Chuyển đổi
Data	(n)	Dữ liệu
Decision	(n)	Quyết định
Demagnetize	(v)	Khử từ hóa
Device	(n)	Thiết bị
Disk	(n)	Đĩa

Division	(n)	Phép chia
Electronic	(n,a)	Điện tử, có liên quan đến m
Equal	(a)	Bằng
Exponentiation	(n)	Lũy thừa, hàm mũ
External	(a)	Ngoài, bên ngoài
Feature	(n)	Thuộc tính
Firmware	(n)	Phần mềm được cứng hóa
Function	(n)	Hàm, chức năng
Fundamental	(a)	Cơ bản
Greater	(a)	Lớn hơn
Handle	(v)	Giải quyết, xử lý
Input	(v,n)	Vào, nhập vào
Instruction	(n)	Chỉ dẫn
Internal	(a)	Trong, bên trong
Intricate	(a)	Phức tạp
Less	(a)	Ít hơn
Logical	(a)	Một cách logic
Magnetic	(a)	Từ
Magnetize	(v)	Từ hóa, nhiễm từ
Manipulate	(n)	Xử lý
Mathematical	(a)	Toán học, có tính chất toán học
Mechanical	(a)	Cơ khí, có tính chất cơ khí
Memory	(n)	Bộ nhớ
Microcomputer	(n)	Máy vi tính
Microprocessor	(n)	Bộ vi xử lý
Minicomputer	(n)	Máy tính mini
Multiplication	(n)	Phép nhân
Numeric	(a)	Số học, thuộc về số học
Operation	(n)	Thao tác
Output	(v,n)	Ra, đưa ra
Perform	(v)	Tiến hành, thi hành
Process	(v)	Xử lý
Processor	(n)	Bộ xử lý
Pulse	(n)	Xung
Register	(v,n)	Thanh ghi, đăng ký

Signal	(n)	Tín hiệu
Solution	(n)	Giải pháp, lời giải
Store	(v)	Lưu trữ
Subtraction	(n)	Phép trừ
Switch	(n)	Chuyển
Tape	(v,n)	Ghi băng, băng
Terminal	(n)	Máy trạm
Transmit	(v)	Truyền

2. Các ý chính trong bài

- Computers are machines capable of processing and outputting data. Máy tính là loại mà sử lý và cho ra được số liệu.

- All computers accept and process information in the form of instructions and characters.

Các máy tính nhận và sử lý thông tin dưới dạng các lệnh và ký tự.

- The information necessary for solving problems is found in the memory of the computer.

Thông tin cần để giải các bài toán được thấy trong bộ nhớ của máy tính.

- Computers can still be useful machines even if they can't communicate with the user.

Máy tính vẫn là công cụ có ích kể cả khi nó không kết nối với người người dùng.

- There are many different devices used for feeding information into a computer. Có nhiều thiết bị khác nhau được dùng để nhập dữ liệu vào máy tính.

- There aren't many diferent types of devices used for giving results as there are for accepting information. Không có nhiều loại thiết bị dùng để cho ra sản phẩm như các thiết bị nhận thông tin.

- Computers can work endlessly without having to stop to rest unless there is a breakdown. Máy tính có thể làm việc không ngừng không cần dừng để nghỉ trừ khi có một hỏng hóc nào đó.

Bài khoá:

A computer is a machine with an intricate network of electronic circuits that operate switches or magnetize tiny metal cores. The I switches, like the cores, are capable of being in one of two possible I states, that is, on or off; magnetized or demagnetized. The machine is capable of storing and manipulating numbers, letters, and characters.The basic idea of a computer is that we can make the machine do what we want by inputting signals that turn certain switches on and turn others off, or that magnetize or do not magnetize the cores.

The basic job of computers is the processing of information. For this reason, computer can be defined as devices which accept information in the form of instructions called a program and characters called data, perform mathematical and/or logical operations on the information, and then supply results of these operations. The program, or part of it, which tells the computers what to do and the data, which provide the information needed to solve the problem, are kept inside the computer in a place called memory.

Computers are thought to have many remarkable powers. However, most computers, whether large or small have three basic capabilities. First, computers have circuits for

performing arithmetic operations, such as: addition, subtraction, division, multiplication and exponentiation.

Second, computers have a means of communicating with the user. After all, if we couldn't feed information in and get results back, these machines wouldn't be of much use. However,. certain computers (commonly minicomputers and microcomputers) are used to control directly things such as robots, aircraft navigation systems, medical instruments, etc.

Some of the most common methods of inputting information are to use punched cards,magnetic tape, disks, and terminals. The computer's input device (which might be a card reader, a tape drive or disk drive, depending on the medium used in inputting information) reads theinformation into the computer.

For outputting infonnation, two common devices used are a printer which prints the new information on paper, or a CRT display screen which shows the results on a TV-like screen.

Third, computers have circuits which can make decisions. The kinds of decisions which computer circuits can make are not of the type: "Who would win a war between two countries?" or "Who is the richest person in the world?" Unfortunately, the computer can only decide three things, named: Is one number less than another? Are two numbers equal? and, Is one number greater than another?

A computer can solve a series of problems and make hundreds, even thousands, of logical decisions without becoming tired or bored. It can find the solution to a problem in a fraction of the time it takes a human being to do the job. A computer can replace people in dull, routine tasks, but it has no originality; it works according to the instructions given to it and cannot exercise any value judgements. There are times when a computer seems to operate like a mechanical "brain", but its achievements are limited by the minds of human beings. A computer cannot do anything unless a person tells it what to do and gives it the appropriate infonnation; but because electric pulses can move at the speed of light, a computer can carry out vast numbers of arithmeticlogical operations almost instantaneously. A person can do everything a computer can do, but in many cases that person would be dead long before the job was finished.

a. Main idea

Which statement best expresses the main idea of the text? Why did you eliminate the other choices?

1. Computers have changed the way in which many kinds of jobs are done.
2. Instructions and data must be given to the computer.
3. Computers are machines capable of processing and outputting data.
4. Without computers, many tasks would take much longer to do.

b. Understanding the passage

Decide whether the following statements are true or false (T/F) by referring to the information in the text. Then make the necessary changes so that the false statements become true.

1. A computer can store or handle any data even if it hasn't received information to do so.

2. All computers accept and process information in the form of instructions and haracters.

3. The information necessary for solving problems is found in the memory of the computer.

4. Not all computers can perform arithmetic operations, make decisions, and communicate in some ways with the users.

5.Computers can still be useful machines even if they can't communicate with the users.

6.There are many different devices used for feeding information into a computer.

7.There aren't as many different types of devices used for giving results as there are for accepting information.

8.Computers can make any type of decisions they are asked to do.

9. Computers can work endlessly without having to stop to rest unless there is a breakdown.

3. Ngữ pháp:

Trong Tiếng Anh các đại từ it, they, them, I, he, she và các đại từ quan hệ which, who, whose, that, such, that, one được sử dụng để diễn tả các từ, cụm từ đã xuất hiện trước đó. Nó được sử dụng như những từ để thay thế tránh lặp lại trong một đoạn văn ngắn. Ngoài ra còn có các từ sau:

the former (cái đứng nhắc tới trước), the latter (cái nhắc tới sau)

the first (cái đầu tiên), the second (cái thứ hai)v.v.. the last (cái cuối cùng)

Bây giờ bạn hãy xem lại bài khoá rồi tìm các từ và cụm từ được in đậm ám chỉ tới

1. **that** operate switches
2. **which** accept information
3. or part of **it**
4. **which** tells the computer
5. **which** prints the new information
6. **which** shows the results
7. **which** can make decisions
8. **it** can be find the solution
9. **it** has no originality
10. tells **it** what to do

Đáp án

1. electronic circuits

2. devices
3. program
4. program
5. printer
6. CRT display screen
7. circuits
8. computer
9. computer
10. computer

4. Nâng cao:

Input-process-output

Processing systems accomplish a task: they take one or more inputs and carry out a process to produce one or more outputs. An input is something put into the system, a process is a series of' actions or changes carried out by the system, while an output is something taken from the system.

III. Hội thoại

Dialogue 1: Buying your first computer.

Pair work. Practice the conversation.

Mary: Hi Jim. How's it going? Chào Jim , dạo này thế nào?

Jim: Pretty good. I'm going to buy a new computer this afternoon. Rất tốt. Chiều nay tôi sẽ mua một chiếc máy tính mới.

Mary: What kind are you going to buy? Bạn sẽ mua loại nào?

Jim: I think I'll buy a desktop, maybe a Gateway or Compaq. Tôi nghĩ là loại để bàn, có lẽ là Gateway hoặc Compact.

Mary: Those are very popular in America, and the prices are really coming down.Những loại này phổ biến ở Mỹ, và giá cả của chúng đang thực sự hạ.

Dialogue 2: Printer problems

Pair work. Practice the conversation.

Linda: I finished my report, but the printer is broken. Tôi đã hoàn tất bản báo cáo nhưng máy in bị hỏng.

What can I do? Tôi có thể làm gì đây?

Mary: Save the file on a floppy and bring it to my house. We can use my printer. Lưu tập tin đó vào đĩa mềm và mang nó tới nhà tôi. Chúng ta có thể dùng máy in của tôi.

Linda: That's a great idea. Ý kiến hay đấy.

Mary: Or, email it to me - that might be faster.gửi thư điện tử cho tôi, nó có lẽ nhanh hơn.

Linda: Hmm, that won't work. The report has graphs.*Nhưng sẽ không ổn. Bản báo cáo có biểu đồ.

* Is this really true? How can you send pictures by Email?

Lecture: the roots of the Internet: where it is now, what the future might bring.

Many people have heard the word "Internet", but what is it? A computer network is a group of computers linked together so they can share data. The Internet is the linking of the thousands of computer networks around the world. It started in the 1970s in the US as a military program.

Today, more than 120 countries and 60 million people use the Internet.

Dialogue 3: CD-ROMs and games

Pair work. Practice the conversation.

Jim: Should I get a CD-ROM with my new computer? Tôi có nên có ổ đĩa CD với cái máy tính mới không nhỉ?

Mary: Of course. All the good game software now comes on CDs. Tất nhiên rồi. Tất cả các

phần mềm trò chơi đều trên đĩa CD.

Jim: CDs are also good for multi-media software. Đĩa CD còn thuận tiện cho phần mềm đa phương tiện.

Mary: Yeah. I love playing Myst. Ừ, tôi thích chơi Myst.

Jim: I hear Riven is even better. Tôi thấy bảo Riven hay hơn đấy.

IV. Bài tập củng cố

1) Write down whether the following statements are true or false.

1 Computers can think. .

2 All systems are made up of groups of elements.

3 Computers can remember a set of instructions.

4 Computers make few mistakes.

5 A computer does not learn from past experiences.

6 Output is something put into the system.

7 A computer was first developed to perform numerical calculations.

8 Computers are human.

9 Our modern society is dependent on computers.

10 Computers hate people.

2) Chia động từ trong ngoặc

1. Various terminals (connect) to this workstation.

2. Microcomputers (know) as 'PUs'.

3. Magazines (typeset) by computers.

4. When a particular program is run, the data (process) .....by the computer very rapidly

5. Hard disks (use) for the permanent storage of information.

6. The drug-detecting test in the Tour de France (support)…… by computers.

7. All the activities of the computer system (coordinate) .....by the central processing unit.

8. In some modern systems information (hold) in optical disks.

3) Dịch đoạn văn sau sang Tiếng Việt

What can computers do?

Computers and microchips have become part of our everyday lives: we visit shops and offices which have been designed with the help of computers, we read magazines which have been produced on computer, we pay bills prepared by computers. Just picking up a telephone and dialling a number involves the use of a sophisticated computer system, as does making a flight reservation or bank transaction.

We encounter daily many computers that spring to life the instant they're switched on (e.g. calculators, the car's electronic ignition, the timer in the microwave, or the programmer

inside the TV set), all of which use chip technology.

What makes your computer such a miraculous device? Each time you turn it on, it is a tabula rasa that, with appropriate hardware and software, is capable of doing anything you ask. It is a calculating machine that speeds up financial calculations. It is an electronic filing cabinet which manages large collections of data such as customers' lists, accounts, or inventories. It is a magical typewriter that -allows you to type and print any kind of document - letters, memos or legal documents. It is a personal communicator that enables you to interact with other computers and with people around the world. If you like gadgets and electronic entertainment, you can even use your PC to relax with computer games.

UNIT 2: HISTORY OF COMPUTER

I. Mục đích bài học

Trong bài này chúng ta sẽ học:

- Từ vựng chuyên ngành liên quan trong bài.
- Nắm được ý chính của bài khoá.
- Làm quen với hậu tố trong Tiếng Anh.
- Luyện tập kỹ năng nói qua tình huống hội thoại trong bài.

II. Hướng dẫn cụ thể

1. Từ vựng chuyên ngành

Abacus	(n)	Bàn tính
Allocate	(v)	Phân phối
Analog	(n)	Tương tự
Application	(n)	Ứng dụng
Binary	(a)	Nhị phân, thuộc về nhị phân
Calculation	(n)	Tính toán
Command	(v,n)	Ra lệnh, lệnh (trong máy tính)
Dependable	(a)	Có thể tin cậy được
Devise	(v)	Phát minh
Different	(a)	Khác biệt
Digital	(a)	Số, thuộc về số
Etch	(v)	Khắc axit
Experiment	(v,n)	Tiến hành thí nghiệm, cuộc thí nghiệm
Figure out	(v)	Tính toán, tìm ra
Generation	(n)	Thế hệ
History	(n)	Lịch sử
Imprint	(v)	In, khắc
Integrate	(v)	Tích hợp
Invention	(n)	Phát minh

Layer	(n)	Tầng, lớp
Mainframe computer	(n)	Máy tính lớn
Mathematician	(n)	Nhà toán học
Microminiaturize	(v)	Vi hóa
Multi-task	(n)	Đa nhiệm
Multi-user	(n)	Đa người dùng
Operating system	(n)	Hệ điều hành
Particular	(a)	Đặc biệt
Predecessor	(n)	Người, vật tiền nhiệm; tổ tiên
Priority	(n)	Sự ưu tiên
Productivity	(n)	Hiệu suất
Real-time	(a)	Thời gian thực
Schedule	(v,n)	Lập lịch; lịch biểu
Similar	(a)	Giống
Storage	(n)	Lưu trữ
Technology	(n)	Công nghệ
Tiny	(a)	Nhỏ bé
Transistor	(n)	Bóng bán dẫn
Vacuum tube	(n)	Bóng chân không

2. Các ý chính trong bài

- Computers, as we know them today, have gone through many changes. Máy tính như chúng ta biết ngày nay đã trải qua rất nhiều thay đổi.

- Computers have had a very short history. Máy tính có một lịch sử còn rất ngắn ngủi.

- The abacus and the fingers are two calculating devices still in use today. Bàn tính và ngón tay là những công cụ tính toán mà ngày nay người ta vẫn còn sử dụng.

- Charles Babbage, an Englishman, could well be called the father of computers. Charles Babbage, một người Anh có thể được coi là cha đẻ của máy tính.

- The first computer was invented and built in USA. Máy tính đầu tiên được phát minh ở nước Mỹ.

- Today's computers have more circuits than previous computers. Máy tính ngày nay có nhiều mạch hơn trước kia.

Bài khoá:

Let us take a look at the history of the computer that we know today. The very first calculating device used was the ten ftngers of a man's hands. This, in fact, is why today we still count in tens and multiples of tens. Then the abacus was invented, a bead frame in which the beads are moved from left to right. People went on using some form of abacus well into the 16th century, and it is still being used in some parts of the world because it can be understood without knowing how to read.

During the 17 th and 18th centuries many people tried to ftnd easy ways of calculating.

J.Napier, a Scotsman, devised a mechanical way of multiplying and dividing, which is how the modem slide rule works. Henry Briggs used Napier's ideas to produce logarithm tables which all mathematicians use today. Calculus, another branch of mathematics, was independently invented by both Sir Isaac Newton, an Englishman, and Leibnitz, a German mathematician.

The first real calculating machine appeared in 1820 as the result of several people's experiments. This type of machine, which saves a great deal of time and reduces the possibility of making mistakes, depends on a series of ten-toothed gear wheels. In 1830 Charles Babbage, an Englishman, designed a machine that was called "The Analytical Engine". This machine, which Babbage showed at the Paris Exhibition in 1855, was an attempt to cut out the human being altogether, except for providing the machine with the necessary facts about the problem to be solved. He never finished this work, but many of his ideas were the basis for building today's computers.

In 1930, the first analog computer was built by an American named Vannevar Bush. This device was used in W orld War II to help aim guns. Mark I, the name given to the ftrst digital computer, was completed in 1944. The men responsible for this invention were Professor Howard Aiken and some people from IBM. This was the first machine that could figure out long lists of mathematical problems, all at a very fast rate. In 1946 two engineers at the University of Pennsylvania, J. Eckert and J. Mauchly, built the first digital computer using parts called vacuum tubes. They named their new invention ENIAC. Another important advancement in computers came in 1947, when John Yon Newmann developed the idea of keeping instructions for the computer inside the computer's memory.

The first generation of computers, which used vacuum tubes, came out in 1950. Univac I is an example of these computers which could perform thousands of calculations per second. In 1960, the second generation of computers was developed and these could perform work ten times faster than their predecessors. The reason for this extra speed was the use of transistors

instead of vacuum tubes. Second-generation computers were smaller, faster and more dependable than fIrst-generation computers. The third-generation computers appeared on the market in 1965. These computers could do a million calculations a second, which is 1000 times as many as first generation computers. Unlike second-generation computers, these are controlled by tiny integrated circuits and are consequently smaller and more dependable. Fourth-generation computers have now arrived, and the integrated circuits that are being developed have been greatly reduced in size. This is due to microminiaturization, which means that the circuits are much smaller than before; as many as 1000 tiny circuits now fit onto a single chip. A chip is a square or rectangular piece of silicon, usually from 1/10 to 1/4 inch, upon which several layers of an integrated circuit are etched or imprinted, after which the circuit is encapsulated in plastic, ceramic or metal. Fourth-generation computers are 50 times faster than third - generation computers and can complete approximately 1,000,000 instructions per second.

At the rate computer technology is growing, today's computers might be obsolete by 1985 and most certainly by 1990. It has been said that if transport technology had developed as rapidly as computer technology, a trip across the Atlantic Ocean today would take a few seconds.

a. Main idea

Which statement best expresses the main idea of the text? Why did you eliminate the other choices?

1. Computers, as we know them today, have gone through many changes.
2. Today's computer probably won't be around for long.
3. Computers have had a very short history.

b. Understanding the passage

Decide whether the following statements are true or false (T/F) by referring to the information in the text. Then make the necessary changes so that the false statement become true.

1. The abacus and the fingers are two calculating devices still in use today.
2. The slide rule was invented hundreds of years ago.
3. During the early 1880s, many people worked on inventing a mechanical calculating machine.
4. Charles Babbage, an Englishman, could well be called the father of computers.
5. The first computer was invented and built in the USA.
6. Instructions used by computers have always been kept inside the computer's memory.
7. Using transistors instead of vacuum tubes did nothing to increase the speed at which calculations were done.
8. As computers evolved, their size decreased and their dependability increased.
9. Today's computers have more circuits than previous computers.
10. Computer technology has developed to a point from which new developments in the field will take a long time to come.

3. Ngữ pháp:

Trong Tiếng Anh, các hậu tố sau thường xuất hiện:

- Để tạo thành các danh từ: ance, ence, or, er, ist, ness.
- Để tạo thành các động từ: ize, ate, fy, en, ify.
- Để tạo thành các tính từ: able, ible, less, ic, ical, ish, ive
- Để tạo thành các phó từ: ly

Bây giờ bạn hãy điền vào khoảng trống dạng thích hợp của các từ

1. operation, operate, operator, operational, operationally, operating

a. A computer can perform mathematical ..... very quickly.

b. One of the first persons to note that the computer is malfunctioning is the computer .....

c. The job of a computer operator is to ..... the various machines in a computer nstallation.

d. The new machines in the computer installation are not yet .....

2. acceptance, accept, accepted, acceptable, acceptably

a. A computer is a device which ..... processes and gives out information.

b. The students are still waiting for their ..... into the Computer Science program.

c. It is ..... to work without a template if the flowcharts are not kept on file.

Đáp án

1. a- operation b- operator c- operated d- operating/ operational

2. a- accepts b- acceptance c- acceptable

4. Nâng cao:

Refinement and synthesis

Refining a system means analysing it in more detail and breaking it down into smaller

components. Each part of the process may be considered either as a system in itself, or as a sub-system. A sub-system is a small system which is part of a larger system. It also contains a group of elements which work together to achieve a purpose.

Synthesis is the reverse process; it involves combining simple sub-systems into a larger, more complex system.

III. Hội thoại:

Dialogue 1 - Jim is at a store buying a computer.

Pair work. Practice the conversation.

Clerk: May I help you? Tôi có thể giúp gì anh?

Jim: Yes, I want to buy a new computer.Tôi muốn mua một chiếc máy tính mới.

Clerk: How much RAM do you need? How big a hard drive will you need?Anh cần RAM bao nhiêu, ổ cứng lớn cỡ nào?

Jim: Well, Windows 95 needs at least 32 MBs RAM, and I'll be using a lot of word processors and game programs.Win 95 cần ít nhất RAM 32 MBs, tôi sẽ cần nhiều bộ sử lý văn bản và các chương trình trò chơi.

Clerk: I recommend a Pentium 300 with an 8 GB hard drive. Tôi khuyên anh dùng Pentium 300 với ổ cứng 8 GB.

Pair work: What kind of computer do you want? If you have a computer, what do you have?

Dialogue 2:

Pair work. Practice the conversation.

Jim: Does this desktop come with a monitor?Một máy tính để bàn cần đi với một màn hình à?

Clerk: Yes, a 15 inch monitor is included, but I suggest buying a 17 inch one instead.Vầng, kèm một màn hình 15inch, nhưng tôi khuyên anh nên mua chiếc 17 inch.

Jim: What kind of sound card does it have?Nó có loại thẻ âm thanh loại nào?

Clerk: It has a Sound Blaster 16. Nó có loại Blaster 16.

Group work: discussion - What kind of computers have you used?

Reading: When only a few computers are hooked together, usually in a single office or building, the result is called a Local Area Network (LAN). When the computers are connected over a greater distance, for example sales offices throughout a city, the result is called a Wide Area Network (WAN). Connecting all of these LANs and WANs together results in an Internet.

The Internet is the world wide connection of all different kinds of networks. A new kind of network is emerging for businesses called an intranet. This refers to all the computers in a company sharing data using the same kind of system as the Internet.

2) Dịch đoạn văn sau sang Tiếng Việt

What does a scanner do?

A scanner converts fext or pictures into electronic codes that can be manipulated by the computer.

In a flatbed scanner, the paper with the image is placed face down on a glass screen similar to a photocopier. Beneath the glass are the lighting and measurement devices. Once the scanner is activated, it reads the image as a series of dots and then generates a digitized image that is sent to the computer and stored as a file. The manufacturer usually includes software which offers different ways of treating the scanned image.

A colour scanner operates by using three rotating lamps, each of which has a different coloured fIlter: red, green and blue. The resulting three separate images are combined into one by appropriate software.

UNIT 3: CHARACTERISTICS OF COMPUTER

I. Mục đích bài học

Trong bài này chúng ta sẽ học:

- Từ vựng chuyên ngành liên quan trong bài.
- Nắm được ý chính của bài khoá.
- Làm quen với cách sắp xếp liên kết và bố cục của một đoạn văn.
- Luyện tập kỹ năng nói qua tình huống hội thoại trong bài.

II. Hướng dẫn cụ thể

1. Từ vựng chuyên ngành

Ability	(a)	Khả năng
Access	(v,n)	Truy cập; sự truy cập
Acoustic coupler	(n)	Bộ ghép âm
Analyst	(n)	Nhà phân tích
Centerpiece	(n)	Mảnh trung tâm
Channel	(n)	Kênh
Characteristic	(n)	Thuộc tính, nét tính cách
Cluster controller	(n)	Bộ điều khiển trùm
Consist (of)	(v)	Bao gồm
Convert	(v)	Chuyển đổi
Equipment	(n)	Trang thiết bị
Gateway	(n)	Cổng kết nối Internet cho những mạng lớn
Interact	(v)	Tương tác
Limit	(v,n)	Hạn chế
Merge	(v)	Trộn
Multiplexor	(n)	Bộ dồn kênh
Network	(n)	Mạng
Peripheral	(a)	Ngoại vi
Reliability	(n)	Sự có thể tin cậy được
Single-purpose	(n)	Đơn mục đích
Teleconference	(n)	Hội thảo từ xa
Tremendous	(a)	Nhiều, to lớn, khủng khiếp

2. Các ý chính trong bài

- All computers have an input, a processor, an output and a storage device. Tất cả các máy tính đều có một thiết bị đầu vào, một bộ sử lý, một thiết bị đầu ra và một thiết bị lưu trữ.

- All computers have the same basic hardware components. Tất cả các máy tính đều có các linh kiện phần cứng cơ bản.

- All information to be processed must be prepared in such a way that the computer will understand it.

- Tất cả các thông tin được sử lý phải được chuẩn bị theo cách để máy tính có thể hiểu được nó.

- Because of the complex electronic circuitry of a computer, data can be either stored or moved about at high speeds. Do có mạch tinh vi của máy tính, dữ liệu có thể được lưu trữ hoặc xoá đi với tốc độ nhanh.

- The processor is the central component of a computer system.Bộ sử lý là linh kiện trung tâm của hệ thống máy tính.

- All other devices used in a computer system are attached to the CPU. Tất cả các thiết bị khác được dùng trong máy tính đều được kết nối với bộ sử lý trung tâm.

- Memory devices are used for storing information. Tất cả các bộ nhớ đều được dùng để lưu thông tin.

Bài khoá

Corpputers are machines designed to process, electronically, specially prepared pieces of information which are termed data. Handling or manipulating the information that has been given to the computer, in such ways as doing calculations, adding information or making comparisons is called processing. Computers are made up of millions of electronic devices capable of storing data or moving them, at enormous speeds, through complex circuits with different functions.

All computers have several characteristics in common, regardless of make or design. Information, in the form of instructions and data, is given to the machine, after which the machine acts on it, and a result is then returned. The information presented to the machine is the input; the internal manipulative operations, the processing; and the result, the output. These three basic concepts of input, processing, and output occur in almost every aspect of human life whether at work or at play. For example, in clothing manufacturing, the input is the pieces of cut cloth, the processing is the sewing together of these pieces, and the output is the finished garment.

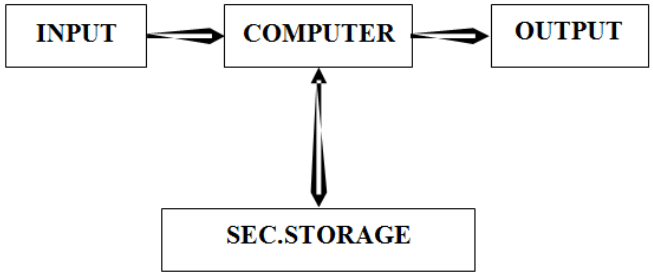


Figure shows schematically the fundamental hardware components in a computer system. The centerpiece is called either the computer, the processor, or usually, the central processing unit (CPU). The term "computer" includes those parts of hardware in which calculations and other data anipulations are performed, and the high-speed internal memory in which data and calculations are stored during actual execution of programs. Attached to the CPU are the various peripheral devices such as card reader and keyboards (two common examples of input devices). When data or program need to be saved for long period of time, they are stored on various secondary memory devices of storage devices such a magnetic tapes or magnetic disks.

Computers have often been thought of as extremely large adding machines, but this is a very narrow view of their function. Although a computer can only respond to certain number of instructions, it is not a single-purpose machine since these instructions can be combined in an infinite number of sequences. Therefore, a computer has no known limit on the kinds of things it can do; its versatility is limited only by the imagination of those using it.

In the late 1950s and early 1960s when electronic computers of the kind in use today were being developed, they were very expensive to own and run. Moreover, their size and reliability were such that a large number of support personnel were needed to keep the equipment operating. This has all changed now that computing power has become portable, more compact, and cheaper.

In only a very short period of time, computers have greatly changed the way in which many kinds of work are performed. Computers can remove many of the routine and boring tasks from our lives, thereby leaving us with more time for interesting, creative work. It goes without saying that computers have created whole new areas of work that did not exist before their development.

a. Main idea

Which statement best expresses the main idea of the text? Why did you eliminate the other choices?

1. Computers have changed the way in which we live.
2. All computers have an input, a processor output and a storage device.
3. Computers have decreased man's workload.
4. All computers have the same basic hardware components.

b. Understanding the passage

Decide whether the following statements are true or false (T/F) by referring to the information in the text. Then make the necessary changes so that the false statement become true.

1. All information to be processed must be prepared in such a way that the computer will understand it.
2. Because of the complex electronic circuitry of a computer, data can be either stored or moved about at high speeds.
3. Not all computers can process data given to them and produce results.
4. The basic concepts of data processing are restricted to computers alone.

5. The processor is the central component of a computer system.

6.All other devices used in a computer system are attached to the CPU.

7. Memory devices are used for storing information.

8. Computers are very much restricted in what they can do.

9. Computers today cost less, are smaller, and need fewer people to operate them than in the past.

10. Computers haven't changed our working conditions very much.

3. Ngữ pháp:

Một đoạn văn là một nhóm các câu được lên kết với nhau để phát triển một ý. Hầu như trong tất cả các đoạn văn, có một ý quan trọng nhất, đó là ý chính của đoạn văn và thường là câu đầu tiên của mỗi đoạn văn.Người ta gọi là câu chủ đề (topic sentence).Ngoài ra còn có các ý phân tích chi tiết hơn trong các sau của đoạn văn.

Bây giờ bạn hãy quay lại đọc bài khoá để tim các câu chủ đề và các ý phụ của từng đoạn văn rồi so sánh với kết quả trong phần ý chính gợi ý trong mục 2.

4. Nâng cao:

A black box

Many people do not understand how a system works, yet they know that if the system is given a certain input it will produce a certain output. For example, in a recorded music system when a CD is placed in the CD player and the play button is pressed, the music will be heard.

Most people are not concerned with how the CD player works. A system such as this can be called a 'black box' because the internal components of the system are not fully understood by most people. Their main concern is that the system accomplishes its task.

III. Hội thoại:

Dialogue 1: Jim gets the new computer home, turns it on, and nothing happens.

Pair work. Practice the conversation.

Linda: Hey Jim, that's a nice computer.Này Jim, đó là một chiếc Máy tính tốt.

Jim: Yeah, but it doesn't work. Look, I turn on the monitor, turn on the computer, and nothing happens.Ờ, nhưng nó hỏng rồi. Nhìn nhớ, tôi bật màn hình lên, bật máy tình lên mà chẳng xuất hiện cái gì cả.

Linda: Are all the cables plugged in? Đã cắm đủ các dây cắm chưa?

Jim: Yes, and I read the manual three times. I don't understand! Rồi, tôi đã đọc sách hướng dẫn ba lần rồi. Tôi không hiểu sao nữa.

Linda: Let me look at it. Oh, here you are - you didn't plug it in.Để tôi xem nào. đây rồi- bạn đã cắm điện đâu.

Jim: Oh no.... Ôi, không.

Dialogue 2:

Pair work. Practice the conversation.

Mary: What's in these boxes? Có gì trong những hộp này vậy?

Jim: The big one is my scanner and the little ones are my speakers and modem.Hộp to là cái máy quét và những cái hộp nhỏ là loa và modem.

Mary: You sure bought a lot of peripherals.Bạn chắc là phải mua nhiều thiết bị ngoại vi hế cơ à.

Jim: Well, I still want to buy a laser jet printer.

IV. Bài tập củng cố

1) Điền từ vào chỗ trống

create, publish, become, be, come out, give, develop, have, find, test, offer, take.

The PostScript language (1)……in the early 1980s as a page description language for printers and photosetters. It was Adobe Systems, Inc. that (2)……the PostScript language and developed Illustrator, the first program that (3)……..: advantage of the full range of graphic possibilities (4)……..by PostScript. Adobe Systems (5) ……also
the suppliers of fonts for use with PostScript-based printers.
The language was documented in The PostScript Language Reference Manual, (6)……by Addison-Wesley in 1985. PostScript soon (7)…….widely used by DTP publishers and graphic designers. In 1990 PostScript level 2 (8)……, which incorporated new features such as ATM technology, composite fonts, image compression and other details.
When some experts (9) the performance of different colour printers, they (10)…….that every PostScript printer was easy to use and (11) ……..consistently good results, while every non-PostScript printer (12)……problems with output in at least one application.

2) Dịch đoạn văn sau sang Tiếng Việt

When buying a hard disk

Hard disks have important advantages over floppy disks: they spin at a higher speed, so you can store and retrieve information much faster than with floppies. They can also hold vast amounts of information, from 500 MB up to several gigabytes. Apart from this, both types of disks work in the same way. To directly access the necessary information, the read/write heads of rigid disks seek the required tracks and sectors, and then transfer the information to the main memory" of the computer or to another I form of storage, all of which is done in a few milliseconds (ms).

Bearing in mind that you always need disk storage, it is good sense to ask yourself some vital questions: What size capacity do I need? What speed can I use? What kind of storage device is the most suitable for my requirements? If you only use word-processing programs, you will need less storage capacity than if you use CAD, sound and animation programs. For most users, 2GB on the hard disk is enough.

Now let's turn our attention to speed. Access times vary from 8 ms to 20 ms. Access time -or seek time - is the time it takes your read/write heads to find any particular record. You have to distinguish clearly between seek time (e.g. 20 ms) and 'data I transfer rate' (the average speed required to transmit data from a disk system to the RAM, e.g. at 20 megabits per second).

Remember that the transfer rate also depends on the power of your computer.

When buying a hard disk you should consider the kinds of drive mechanisms and products available. There are 'internal' and 'external' drives which are both fixed hard drives, i.e. rigid disks sealed into the drive unit, either within or attached to the computer. A third type of hard drive, known as 'removable', allows information to be recorded on 'cartridges', which can be removed and stored offline for security purposes. Popular removable hard disks include Jaz and Zip drives.

A Jaz cartridge can store up to 2 GB of data, whereas a Zip drive can store up to 250 MB of data.

Finally, a few words about 'optical' technology: CD-ROMS and CD-Recordable drives have become a reality. However, magnetic hard disks are still preferred for personal data storage, whereas optical disks are used for recording large amounts of information such as a dictionary or ehcyclopedia.

V. Tóm tắt nội dung bài học

Trong bài này chúng ta đã học những nội dung sau:

- All computers have an input, a processor, an output and a storage device. Tất cả các máy tính đều có một thiết bị đầu vào, một bộ sử lý, một thiết bị đầu ra và một thiết bị lưu trữ.
- All computers have the same basic hardware components. Tất cả các máy tính đều có các linh kiện phần cứng cơ bản.
- All information to be processed must be prepared in such a way that the computer will understand it.
- Một đoạn văn là một nhóm các câu được lên kết với nhau để phát triển một ý. Hầu như trong tất cả các đoạn văn, có một ý quan trọng nhất, đó là ý chính của đoạn văn và thường là câu đầu tiên của mỗi đoạn văn.Người ta gọi là câu chủ đề (topic sentence).

- Cách lắp máy tính với các cấu trúc: turn on the monitor, plug in the cable, read the manual.

UNIT 4: HARDWARE AND SOFTWARE

I. Mục đích bài học

Trong bài này chúng ta sẽ học:

- Từ vựng chuyên ngành liên quan trong bài.
- Nắm được ý chính của bài khoá.
- Làm quen với các tiền tố trong Tiếng Anh.
- Luyện tập kỹ năng nói qua tình huống hội thoại trong bài.

II. Hướng dẫn cụ thể

1. Từ vựng chuyên ngành

Activity	(n)	Hoạt động
Animation	(n)	Hoạt hình
Attach	(v)	Gắn vào, đính vào
Condition	(n)	Điều kiện
Coordinate	(v)	Phối hợp
Crystal	(n)	Tinh thể
Diagram	(n)	Biểu đồ
Display	(v,n)	Hiển thị; màn hình
Distribute	(v)	Phân phối
Divide	(v)	Chia
Document	(n)	Văn bản
Electromechanical	(a)	Có tính chất cơ điện tử
Encode	(v)	Mã hóa
Estimate	(v)	Ước lượng
Execute	(v)	Thi hành
Expertise	(n)	Sự thành thạo
Graphics	(n)	Đồ họa
Hardware	(n)	Phần cứng
Interchange	(v)	Trao đổi lẫn nhau
Liquid	(n)	Chất lỏng
Magazine	(n)	Tạp chí
Majority	(n)	Phần lớn, phần chủ yếu
Multimedia	(n)	Đa phương tiện
Online	(a)	Trực tuyến

Package	(n)	Gói
Physical	(a)	Thuộc về vật chất
Recognize	(v)	Nhận ra, nhận diện
Secondary	(a)	Thứ cấp
Service	(n)	Dịch vụ
Software	(n)	Phần mềm
Solve	(v)	Giải quyết
Sophistication	(n)	Sự phức tạp
Superior (to)	(a)	Hơn, trên, cao hơn…
Task	(n)	Nhiệm vụ
Text	(n)	Văn bản chỉ bao gồm ký tự

2. Các ý chính trong bài

- A computer system needs both hardware and software to be complete. Một hệ thống máy tính cần có cả phần cứng và phần mềm để hoàn thiện.

- A system implies a good mixture of parts working together. Một hệ thống gồm các thành phần kết nối chặt chẽ với nhau.

- The computer is the hardware. Máy tính là một phần cứng.

- The processor is usually referred to as the CPU. Bộ sử lý thường để nói tới bộ CPU.

- The computer means the processor and the internal memory. Từ máy tính để chỉ bộ sử lý và bộ nhớ trong.

- Systems software is usually referred to as programs. Phần mềm các hệ thốn thường để chỉ các chương trình.

- Complete software/hardware products are called turnkey systems. Các sản phẩm phần mềm/phần cứng hoàn thiện được gọi là các hệ thống ứng dụng cụ thể turnkey.

- Computers process specially prepared items of information. Máy tính sử lý các mục thông tin đã được chuẩn bị đặc biệt trước.

Bài khoá:

In order to use computers effectively to solve problems in our environment, computer systems are devised. A "system" implies a good mixture of integrated parts working together to form a useful whole. Computer systems may be discussed in two parts.

The first part is hardware - the physical, electronic and electromechanical devices that are thought and recognized as "computers". The second part is software - the programs that control and coordinate the activities of the computer hardware and that direct the processing of data.

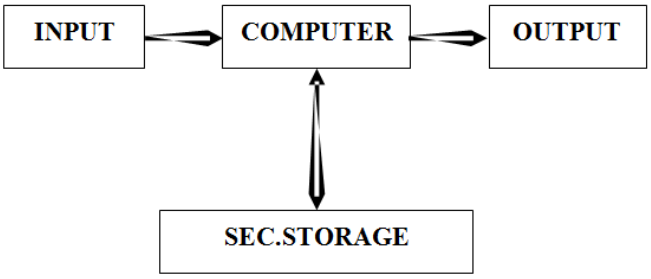

INPUT
COMPUTER
OUTPUT
SEC.STORAGE

Figure shows diagrammatically the basic components of computer hardware joined together in a computer system. The centerpiece is called either the computer, the processor, or usually the central processing unit (CPU). The term "computer" usually refers to those parts of the hardware in which calculations and other data manipulations are performed, and to the internal memory in which data and instructions are stored during the actual execution of programs. The various peripherals, which include input and/or output devices, various secondary memory devices, and so on, are attached to the CPU.

Computer software can be divided into two very broad categories systems software and application software. The former is often simply referred to as "systems". These, when brought into internal memory, direct the computer to perform tasks. The later may be provided along with the hardware by a systems supplier as part of a computer product designed to answer a specific need in certain areas. These complete hardware/software products are called turnkey systems.

The success or failure of any computer system depends on the skill with which the hardware and software components are selected and blended.A poorly chosen system can be a monstrosity incapable of performing the tasks for which it was originally acquired.

a. Main idea

Which statement best expresses the main idea of the text? Why did you eliminate the other choices?

1.Only hardware is necessary to make up a computer system.

2. Software alone doesn't constitute a computer system.

3. A computer system needs both hardware and software to be complete.

b. Understanding the passage

Indicate whether the following ideas are stated or not stated (S/NS) in the text.

1.A system implies a good mixture of parts working together.

2.Input and output devices operate more slowly than the decision making devices.

3.The control unit and the arithmetic - logical unit are part of the processor.

4.The "computer" is the hardware.

5.Software is the programs on cards, tapes and disks.

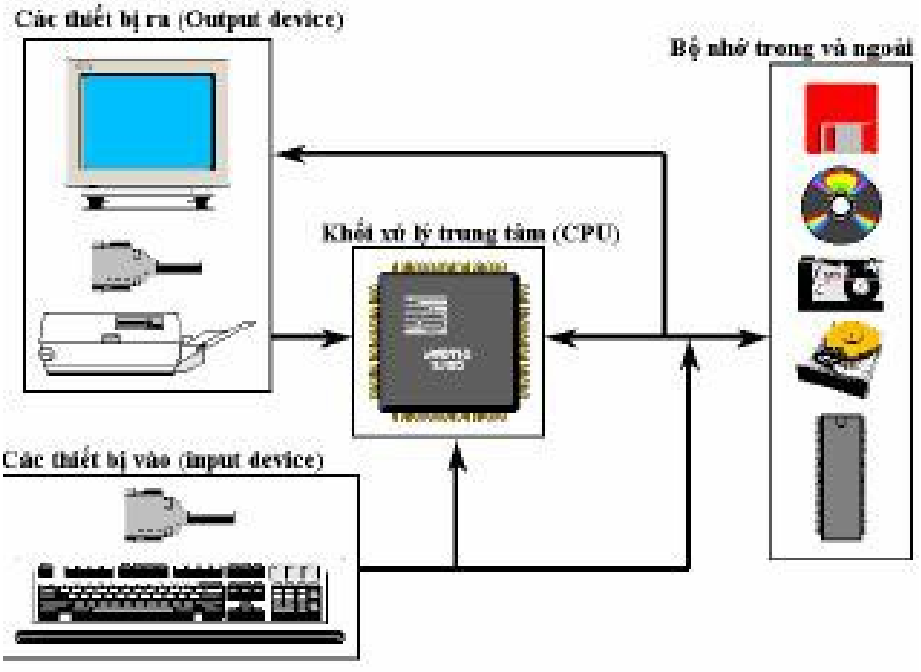
6.The processor is usually referred to as the CPU.

7.The word "computer" means the processor and the internal memory.

8. Systems software is usually referred to as programs.

9.Complete hardware/software products are called turnkey systems.

10. Computers process specially prepared items of information.



3. Ngữ pháp:

Trong Tiếng Anh xuất hiện các tiền tố sau:

- Để chỉ tính ngược lại: un, non, in, dis, re.
- Để chỉ kích cỡ semi (nửa), mini (nhỏ), micro (to).
- Chỉ vị trí: inter (trong), super (trên), trans (chuyển đổi), ex (ngoài), extra (thêm), mid (giữa)
- Chỉ thời gian hay trật tự: pre, ante, prime, fore (trước), post (sau)
- Chỉ con số: bi, hex, oct, multi.

Bây giờ bạn hãy gạch chân dưới tất cả các tiền tố trong những câu sau:

1. Non-impact printers are inexpensive and silent.
2. Tape-marks are unmagnetized reflective strips stuck onto the tape.
3. The octal and the hexadecimal systems are number systems used as a form of shorthand in reading groups of four binary digits.
4. The internal storage locations of a computer are called its primary memory.
5. Multi programming is when more than one program can be present at different storage locations of the memory at the same time.

Đáp án:

1. Non-impact, inexpensive
2. unmagnetized, reflective
3. octal, hexadecimal, binary
4. internal, primary
5. Multi programming

4. Nâng cao:

PROCEDURES

Procedures are the set of instructions which specify what processing is to be performed, or what course of action is to take place.

III. Hội thoại:

Dialogue1: the computer is working - now to learn Windows 95.

Pair work. Practice the conversation.

Jim: Windows 95 is easy to use. Win 95 thật dễ sử dụng.

Paul: Yes, and it's a lot of fun too. Ờ, cũng có nhiều cái hay lắm.

Jim: Can you show me how to find programs and files?cho tôi cách tìm các chương trình và thư mục không?

Paul: Sure, to find files use the Explorer program. Let me show you.Được thôi, để tìm các thư mục hãy sử dụng chương trình Explorer. Để tôi chỉ cho bạn.

Jim: Hey, that is easy! Ồ, dễ nhỉ.

Dialogue 2:

Pair work. Practice the conversation.

Paul: Each window has three buttons on the right side of the strip at the top. Mỗi cửa sổ có ba nút bên tay phải của phía trên màn hình

Jim: What do they do? chúng để làm gì?

Paul: The one on the right closes the window, the middle one maximizes, and the one on the left minimizes. Nút bên phải là để thoát khỏi cửa sổ, nút giữa là cho kích cỡ màn hình to nhất, và nút bên trái là cho màn hình nhỏ lại.

Jim: Look, the middle one changed when I clicked on it.Nhìn nhé, nút giữa thay đổi khi tôi ấn vào nó.

Paul: That's right. Now it's called the restore button. Đúng rồi, nó được gọi là nút phục hồi.

IV. Bài tập củng cố

1. Điền từ vào chỗ trống

1. I've been looking for a job April.
2 .They've used a fax machine the past two years.
3 .Kate Jackson studied computer sciences three years.
4 .I got married six years .....
5. She's been working for this firm 1990.

2. Dịch đoạn văn sau sang Tiếng Việt

Word-processing facilities

Writing letters, memos or reports are the ways most people use computers. They manipulate words and text on a screen primarily to print at some later time and store for safe keeping.

Computers alleviate much of the tedium associated with typing, proofing and manipulating words.

Because computers can store and recall information so readily, documents need not be retyped from scratch just to make corrections or changes. The real strength of word processing lies in this ability to store, retrieve and change information. Typing is still necessary (at least, for now) to put the information into the computer initially but once in, the need to retype only applies to new information.

Word processing is more than just typing, however. Features such as Search and Replace allow users to find a particular phrase or word no matter where it is in a body of text. This becomes more useful as the amount of text grows.

Word processors usually include different ways to view the text. Some include a view that displays the text with editor's marks that show hidden characters or commands (spaces, returns,paragraph endings, applied styles, etc.). Many word processors include the ability to show exactly how the text will appear on paper when printed. This is called WYSIWYG (What You See Is What You Get, pronounced 'wizzy-wig'). WYSIWYG shows bold, *italic,* underline and other type style characteristics on the screen so that the user can clearly see what he or she is typing. Another feature is the correct display of different typefaces and format characteristics (margins, indents, super- and sub-scripted characters, etc.). This allows the user to plan the document more accurately and reduces the frustration of printing something that doesn't look right.

Many word processors now have so many features that they approach the capabilities of layout applications for desktop publishing. They can import graphics, format multiple columns of text, run text around graphics, etc.

Two important features offered by word processors are automatic hyphenation and mail merging. Automatic hyphenation is the splitting of a word between two lines so that the text will fit better on the page. The word processor constantly monitors words typed and when it reaches the end of a line, if a word is too long to fit, it checks that word in a hyphenation dictionary. This dictionary contains a list of words with the preferred places to split it. If one of these cases fits part of the word at the end of the line, the word processor splits the word, adds a hyphen at the end and places the rest on the next line. This happens extremely fast and gives text a more polished and professional look.

Mail merge applications are largely responsible for the explosion of ‘personalized' mail. Form letters with designated spaces for names and addresses are stored as documents with links to lists of names and addresses of potential buyers or clients. By designating what

information goes into which blank space, a computer can process a huge amount of correspondence substituting the 'personal' information into a form letter. The final document appears to be typed specifically to the person addressed.

Many word processors can also generate tables of numbers or figures, sophisticated indexes and comprehensive tables of contents.

V. Tóm tắt nội dung bài học

Trong bài này chúng ta đã học những nội dung sau:

- The processor is usually referred to as the CPU. Bộ sử lý thường để nói tới bộ CPU.
- The computer means the processor and the internal memory. Từ máy tính để chỉ bộ sử
lý và bộ nhớ trong.
- Systems software is usually referred to as programs. Phần mềm các hệ thốn thường để
chỉ các chương trình.

Làm quen với các tiền tố :

- Để chỉ tính ngược lại: un, non, in, dis, re.
- Để chỉ kích cỡ semi (nửa), mini (nhỏ), micro (to).
- Chỉ vị trí: inter (trong), super (trên), trans (chuyển đổi), ex (ngoài), extra (thêm), mid (giữa)
- Chỉ thời gian hay trật tự: pre, ante, prime, fore (trước), post (sau)
- Chỉ con số: bi, hex, oct, multi.
- Học cấu trúc: Can you show me how to find program and files? Click on the button.

UNIT 5: MAINFRAMES

I. Mục đích bài học

Trong bài này chúng ta sẽ học:

- Từ vựng chuyên ngành liên quan trong bài.
- Nắm được ý chính của bài khoá.
- Làm quen với các liên từ kết nối bố cục của một đoạn văn.
- Luyện tập kỹ năng nói qua tình huống hội thoại trong bài.

II. Hướng dẫn cụ thể

1. Từ vựng chuyên ngành

Accommodate	(v)	Làm cho thích nghi, phù hợp; chứa đựng
Aspect	(n)	Lĩnh vực, khía cạnh
Associate	(v)	Có liên quan, quan hệ
Causal	(a)	Có tính nhân quả
Century	(n)	Thế kỷ
Chronological	(a)	Thứ tự thời gian
Communication	(n)	Sự liên lạc
Configuration	(n)	Cấu hình
Conflict	(v)	Xung đột
Contemporary	(a)	Cùng lúc, đồng thời
Database	(n)	Cơ sở dữ liệu
Decade	(n)	Thập kỷ
Decrease	(v)	Giảm
Definition	(n)	Định nghĩa
Design	(v,n)	Thiết kế; bản thiết kế
Discourage	(v)	Không khuyến khích, không động viên
Disparate	(a)	Khác nhau, khác loại
Distinction	(n)	Sự phân biệt, sự khác biệt
Distributed system	(n)	Hệ phân tán
Encourage	(v)	Động viên, khuyến khích
Environment	(n)	Môi trường
Essential	(a)	Thiết yếu, căn bản
Fibre-optic cable	(n)	Cáp quang
Filtration	(n)	Lọc
Flexible	(a)	Mềm dẻo

Global	(a)	Toàn cầu, tổng thể
Hook	(v)	Ghép vào với nhau
Hybrid	(a)	Lai
Imitate	(v)	Mô phỏng
Immense	(a)	Bao la, rộng lớn
Impact	(v,n)	Tác động, va chạm; sự va chạm, tác động
Increase	(v)	Tăng
Indicate	(v)	Chỉ ra, cho biết
Install	(v)	Cài đặt, thiết lập
Interface	(n)	Giao diện
Interruption	(n)	Ngắt
Logical	(a)	Có tính logic
Mainframe	(n)	Máy tính lớn
Make up	(v)	Chiếm; trang điểm
Occur	(v)	Xảy ra
Parse	(v)	Phân tích
Potential	(n)	Tiềm năng
Powerful	(a)	Đầy sức mạnh
Predict	(v)	Tiên đoán, dự đoán
Protocol	(n)	Giao thức
Query	(n)	Truy vấn
Reduce	(v)	Giảm
Refrigeration system	(n)	Hệ thống làm mát
Require	(v)	Yêu cầu
Respond	(v)	Đáp ứng
Resume	(v)	Khôi phục
Routine	(a,n)	Thông thường, hàng ngày; công việc hàng ngày
Semiconductor	(n)	Bán dẫn
Simulate	(v)	Mô phỏng
Single	(a)	Đơn, một
Supplier	(n)	Nhà cung cấp, thiết bị cung cấp
Synchronous	(a)	Đồng bộ
Technical	(a)	Thuộc về kỹ thuật

2. Các ý chính trong bài

- There are three types of mainframes.

Có ba loại máy tính lớn.

- Mainframes are very powerful and can execute jobs very rapidly and easily.

Máy tính lớn có công suất lớn và có thể thực hiện được các tác vụ nhanh chóng và dễ dàng.

- Digital Computers are used more than analogue computers.

Các máy tính số được sử dụng nhiều hơn các máy tính tương tự.

- The hybrid computer is combination of both the digital and the analogue computer.

Máy tính lai là một sự kết hợp giữa máy tính số và máy tính tương tự.

- Mainframes are huge powerful machines whose peripheral equipment takes up a lot of space.

Máy tính lớn là loại máy có công suất lớn mà thiết bị ngoại vi của chúng cũng chiếm nhiều diện tích chỗ chứa chúng.

- Mainframes are expensive to buy and to operate.

Phải mất nhiều tiền để mua và sử dụng máy tính lớn.

Bài khoá

[1] Large computer systems, or mainframes, as they are referred to in the field of computer science, are those computer systems found in computer installations processing immense amounts of data. These powerful computers make use of very high-speed main memories into which data and programs to be dealt with are transferred for rapid access. These powerful machines have a larger repertoire of more complex instructions which can be executed more quickly. Whereas smaller computers may take several steps to perform a particular operation, a larger machine may accomplish the same thing with one instruction.

[2] These computers can be of two types: digital or analog. The digital computer or general purpose computer as it is often known, makes up about 90 percent of the large computers now in use. It gets its name because the data that are presented to it are made up of code consisting of digits single character numbers. The digital computer is like a gigantic cash register in that it can do calculations in steps, one after another at tremendous speed and with great accuracy. Digital computer programming is by far the most commonly used in electronic data processing for business or statistical purposes. The analog computer works something like a car speedometer, in that it continuously works out calculations. It is used essentially for problems involving measurements. It can simulate, or imitate different measurements by electronic means. Both of these computer types the digital and the analog - are made up of electronic components that may require a large room to accommodate them. At present, the digital computer is capable of doing anything the analog once did. Moreover, it is easier to program and cheaper to operate. A new type of scientific computer systems called the hybrid computer has now been produced that combines the two types into one.

[3] Really powerful computers continue to be bulky and require special provision of their housing, refrigeration systems, air filtration and power suppliers. This is because much more space is taken up by the input output devices the magnetic tape and disk unit and other peripheral equipment than by the electronic components that do not make up the bulk of the machine in powerful installation. The power consumption of these machines is also quite high, not to mention the price that runs into hundreds of thousands of dollars. The future will

bring great developments in the mechanical devices associated with computer systems. For a long time these have been the weak link, from the point of view of both efficiency and reliability.

1. Comprehension

a. Main idea

Which statement best expresses the main idea of the text? Why did you eliminate the other choices?

l. Hybrid computers are a combination of digital and analog computers.

2. Digital computers are used more than any other type of computer.

3. There are three types of mainframes.

4. Analog computers can do more varied work than digital or hybrid computers.

b. Understanding the passage

Decide whether the following statements are true or false (T / F) by referring to the information in the text. Then make the necessary changes so that the false statements become true.

l. A mainframe is the type of computer that can sit on top of a desk.

2. Mainframes are very powerful and can execute jobs very rapidly and easily.

3.Digital computers are used more than analog computers.

4. The analog computer is far smaller than a digital computer and therefore occupies very little space.

5.The hybrid computer is a combination of both the digital and the analog computer.

6.The analog computer does its calculations one step at a time.

7.The digital computer continuously works out calculations.

8.Mainframes are huge powerful machines whose peripheral equipment takes up a lot of space.

9. Mainframes are expensive to buy and operate.

10. Mainframes technology has reached the end of the road. No further development is needed.

2. Read this summary of the text and fill in the gaps using the list of words below:

Computer networks link computers locally or by external communication lines and software (1)……..allowing data to be exchanged rapidly and reliably.The (2)…… between local area and wide area networks is, however, becoming unclear. Networks are being used to perform increasingly diverse tasks, such as carrying e-mail, providing access to public databases, and for (3)…….. Networks also allow users in one locality to share resources.

Distributed systems use networked computers. PCs or (4)…….provide the user (5)…… Mainframes process (6)…… and return the results to the users. A user at his PC might make a query against a central database. The PC passes the query, written in a special language, to the mainframe, which then (7)……..the query, returning to the user only the data requested. This allows both the network and the individual PC to operate

efficiently.

In the 1980s, at least 100.000 (8)……were set up world-wide. As (9) ……orbit satellites have allowed the price of long-distance telephone calls, data can be transmitted more cheaply. In addition, (10)……..cable has been installed on a large scale, enabling vast amounts of data to be transmitted at a very high speed using light signals. This will considerably reduce the price of network access, making global networks more and more a part of our professional and personal lives. Networks should also improve our work (11) ……..and technical abilities.

distinction	fibre-optic	protocols	synchronous
distributed systems	LANs	queries	workstations
environments	parse	screen	handling

Đáp án

1.

a. Main idea

3. Mainframes are three types, and neither 1 nor 2 nor 4 express this idea.

b. Understanding the passage

1. F - A mainframe is a large computer system requiring a special room.

2.T

3. T

4. F - Both analog and digital computers are large computers.

5. T

6. F - The digital computer does its calculations one step at a time.

7. F - The analog computer continuously works out calculations.

8.T

9. T

10. F - There will be great developments in computer technology in the future.

2.

2.distinction	10. fibre-optic	5. protocols	9. synchronous
8.distributed systems	4. LANs	6.queries	1.workstations
11. environments	3. parse	7. handling	

3. Ngữ pháp:

Để tạo một đoạn văn gồm một số ý chính, bạn cần sử dụng một số các liên từ:

- Thứ nhất, thứ hai, thứ ba, v.v..

1, 2, 3, etc

one, two, three, etc

first(ly), second(ly), third(ly)

in the first/second/third place

- Sau đó, ngoài ra

another, next, then

furthermore, afterwards, moreover

- Cuối cùng

lastly, finally

- Bắt đầu

to begin, start with,

- Kết thúc

and to conclude

- Đầu tiên và quan trọng nhất

first and foremost

first and most importantly

- Cuối nhưng không kém phần quan trọng

above all

last but not least

Bây giờ bạn hãy hoàn chỉnh đoạn văn sau bằng cách điền vào khoảng trống với những

từ, cụm từ thích hợp.

Computers can do wonders, but they can waste a lot of money unless careful consideration goes into buying them. Any businessman thinking of buying a computer system should …… admit he knows very little about computers…….., he must realize that the computer salesman doesn't know how his business works……. , that he should get outside advice is a must, not necessarily from consultants but from other executives who have had recent experience in buying a computer system…….. he should try to see systems similar to ones under consideration in operation. Because his operations will have differences that must be accommodated, he should find out what would be involved in upgrading a system…….. important thing to know before buying a computer is the financial situation of the supplier because computer companies come and go and not all are financially stable…….. , the prospective buyer should demand that every detail be covered in writing, including hardware and software if they are supplied by different companies. 1bere's nothing wrong with computers, it's how and why they are used that can cause problems.

4) Nâng cao:

Hierarchy charts

Just as we can refine a system into sub-systems, we can also refine a process into sub-

processes, -also called modules. Each of these modules contains only one process.

We can illustrate the different levels of the process using a hierarchy chart. The major module is shown as the top level and it can be refined into lower level modules as more detail is required. Control passes from the top level down to the next lower module or first refinement, then to the next lower module or second refinement, and' so on. As well as containing only one process, each module should contain a single entry and a single exit.

III. Hội thoại:

Clerk: May I help you? Tôi có thể giúp gì?

Jim: Yes, I want to buy a new computer. Vâng, tôi muốn mua một chiếc máy tính mới.

Clerk: How much RAM do you need? How big a hard drive will you need? Anh cần RAM bao nhiêu? Ổ cứng lớn cỡ nào?

Jim: Well, Windows 95 needs at least 32 MBs RAM, and I'll be using a lot of word processors and game programs. Ồ, Windows 95 cần ít nhất RAM 32 MBs, và tôi dùng nhiều bộ xử lý văn bản và các chương trình trò chơi.

Clerk: I recommend a Pentium 300 with an 8 GB hard drive.

Tôi khuyên anh nên dùng loại Pentium 300 và một ổ cứng 8 GB.

IV. Bài tập củng cố

Điền từ vào chỗ trống

Speed, store, peripheral, connection, interface, controls, bridge, storage, primary, secondary

INTERFACES

An interface is a ..... between two parts of a system. It is like a ..... that allows data to be exchanged between two devices which work in a different at way or at different ..... In a computer-controlled system an ..... is required to link the sensor devices and the output devices to the controller or computer. In a microcomputer system ..... devices are linked using interface cards and ports.

STORAGE DEVICES

Storage devices are required to ..... both the software which ..... the entire system and the data from sensor devices. Some systems use only the computer's internal data ....., called..... storage, while other systems also use .....storage devices such as disk drives.

V. Tóm tắt nội dung bài học

Trong bài này chúng ta đã học những nội dung sau:

- Mainframes are very powerful and can execute jobs very rapidly and easily.

Máy tính lớn có công suất lớn và có thể thực hiện được các tác vụ nhanh chóng và dễ dàng.

- Digital Computers are used more than analogue computers.

Các máy tính số được sử dụng nhiều hơn các máy tính tương tự.

- The hybrid computer is combination of both the digital and the analogue computer.

Máy tính lai là một sự kết hợp giữa máy tính số và máy tính tương tự.

- Làm quen với các liên từ firstly, secondly, thirdly…

- Học cấu trúc: How much RAM do you need?

- Biết thêm khái niệm module và biểu đồ phân cấp.

UNIT 6: CENTRAL PROCESS UNIT

I. Mục đích bài học

Trong bài này chúng ta sẽ học:

- Từ vựng chuyên ngành liên quan trong bài.
- Nắm được ý chính của bài khóa.
- Làm quen với các trạng từ chỉ thời gian.
- Luyên tập kỹ năng nói qua tình huống hội thoại trong bài.

II. Hướng dẫn cụ thể

1. Từ vựng chuyên ngành:

Acceptable	(a)	Có thể chấp nhận được
Accuracy	(n)	Sự chính xác
Computer science	(n)	Khoa học máy tính
Concentrate	(v)	Tập trung
Economical	(a)	Một cách kinh tế
Financial	(a)	Thuộc về tài chính
Information system	(n)	Hệ thống thông tin
Objective	(n)	Mục tiêu, mục đích
Pinpoint	(v)	Chỉ ra một cách chính xác
Precise	(a)	Chính xác
Relevant	(a)	Thích hợp, có liên quan
Responsible	(a)	Chịu trách nhiệm
Retrieve	(v)	Lấy, gọi ra
Situation	(n)	Bối cảnh, tình cảnh, trạng thái
Sufficient	(a)	Đủ, thích đáng
Transaction	(n)	Giao tác
Trend	(v,n)	Có xu hướng; xu hướng

2. Các ý chính trong bài:

- The CPU is composed of the arithmetic-logical unit and control unit only.

Bộ sử lý trung tâm chỉ bao gồm bộ phận logic số học và bộ điều khiển.

- The CPU is responsible for all the activities taking place within a computer.

CPU quản lý tất cả các thao tác diễn ra trong một máy tính.

- The processor can not operate on any information if the information is not in main storage.

Bộ sử lý không thể khai thác thông tin nếu thông tin không có trong bộ nhớ chính.

- Only after the data has been processed by the CPU can results be transmitted to an output device.

Chỉ sau khi số liệu đã được sử lý thì nó mới có thể được chuyển ra thiết bị ngoại vi.

Bài khoá:

It is common practice in computer science for the words "computer" and "processor" to be used interchangeably. More precisely, "computer" refers to the central processing unit (CPU) together with an internal memory. The internal memory or main storage, control and processing components make up the heart of the computer system. Manufacturers design the CPU to control and carry out basic instructions for their particular computer.

The CPU coordinates all the activities of the various components of the computer. It determines which operations should be carried out and in what order. The CPU can also retrieve information from memory and can store the results of manipulations back into the memory unit for later reference.

In digital computers the CPU can be divided into two functional units called the control unit (CU) and the arithmetic - logical unit (ALU).

These two units are. made up of electronic circuits with millions of switches that can be in one of two states, either on or off.

The function of the control unit within the central processor is to transmit coordinating control signals and commands. The control unit is that portion of the computer that directs the sequence or step-by-step operations of the system, selects instructions and data from memory, interprets the program instructions, and controls the flow between main storage and the arithmetic - logical unit.

The arithmetic - logical unit, on the other hand, is that portion of the computer in which the actual arithmetic operations, namely, addition, subtraction, multiplication, division and exponentiation, called for in the ' instructions are performed. It also performs some kinds of logical operations such as comparing or selecting information. All the operations of the ALU are under the direction of the control unit.

Programs and the data on which the control unit and the ALU operate, must be in internal memory in order to be processed. Thus, if located on : secondary memory devices such as disks or tapes, programs and data and ftrst loaded into internal memory.

Main storage and the CPU are connected to a console, where manual control operations can be performed by an operator. The console is an important, but special purpose, piece of equipment.

It is used mainly when the computer is being started up, or during maintenance and repair. Many mini and micro systems do not have a console.

Comprehension

a. Main idea

Which statement best expresses the main idea of the text? Why did you eliminate the other choices?

01. Main storage is not a part of the processor.

02. The CPU is the made up of the control unit, the arithmetic - logical unit and internal memory.

03. The CPU is composed of the arithmetic - logical unit and control unit only.

b. Understanding the passage

Decide whether the following statements are true or false (T/F) by referring to the information in the text. Then make the necessary changes so that the false statements become true.

1. The central processing unit is made up of three components.

2.The CPU is responsible for all the activities taking place within a computer.

3.The processor itself has three components.

4. The control unit directs the flow of information within the processor.

5.The arithmetic-logical unit of the processor is responsible for the interpretation of program instructions.

6.The arithmetic-logical unit is also responsible for choosing and comparing the appropriate information within a program.

7. The processor cannot operate on any information if that information is not in main storage.

8.Secondary memory and internal memory are located in the same place in the computer system.

9. Only after the data has been processed by the CPU can results be transmitted to an output device.

10. Computers can solve problems more quickly if they operate on new information.

3. Ngữ pháp:Chúng ta làm quen thêm một số phó từ chỉ thời gian

- When the first digital computer was developed, the first analog computer had already been in use for some time.

Khi chiếc máy tính kỹ thuật số đầu tiên được phát triển thì chiếc máy tính analog đã được xử dụng một thời gian rồi.

-Up to now, computers have not created too much unemployment.

Cho tới nay, máy tính không tạo ra nhiều nạn thất nghiệp.

- At present, computers are used for printing newspapers.

Hiện nay, máy tính đang được sử dụng để in báo.

4. Nâng cao:

IPO charts

An input-process-output (IPO) chart is another method of describing a system. It specifies

the inputs put into the system, the processing to be carried out by the system and the outputs taken from the system. It consists of three columns with the headings input, process and output. IPO charts can also be drawn for any sub-system.

III. Hội thoại:

Dialogue 1:

Mary: Look, I bought the new Encarta encyclopedia on CD-ROM. It's a kind of "edutainment" software.

Nhìn này tôi mới mua được từ điển bách khoa toàn thư Encât trên đĩa mềm đây. Đây là một phần mềm học tập kết hợp với giải trí đấy.

Paul: It has great graphics and sound files.

Nó có những tập tin có hình ảnh và âm thanh rất hay.

Mary: Let's see.... How does it work? Hmm, I put it in the CD-ROM drive and install it this way.

Để xem nào, nó hoạt động như thế nào đây? hm, ta cho đĩa vào ổ và cài đặt như thế này.

Dialogue 2:

Jim: This is a new multi-media authoring tool. Now I can make applications with sound and graphics.

Đây là một công cụ có bản quyền đa phương tiện mới. Tôi có thể tạo ra các ứng dụng với âm thanh và hình ảnh.

Mary: Can you also put in animation?

Bạn còn có thể làm cho nó sống động hơn như phim.

Jim: Yes, and I can use .avi files to show movies.

Đúng tôi có thể dùng các thư mục đuôi avi để tạo ra các bộ phim.

Mary: Great! Let's go play your first game.

Tuyệt với. Chúng ta hãy chơi trò chơi đầu tiên của bạn đi.

Dialogue 3:

Jim: How do I play this movie file? It has an .avi extension.

Làm thế nào để tôi chơi file của bộ phim này? Nó ó phần mở rộng đuôi avi.

Paul: Windows 95 has a Multimedia Player which is powerful but simple. Just double-click on the .avi file you want to see. It will close when the file is finished playing.

Window 95 có phần dành để mở phim nó rất hữu hiệu mà lại đơn giản. Chỉ cần nháy chuột

kép vào file đuôi ai mà bạn muốn xem. Nó sẽ tự đóng lại khi bạn dùng xong.

Jim: I see. How do I control the video player?

Tôi hiểu. Thế điều khiển phần hình như thế nào?

Paul: If you want to get the controller, just double click on the title bar of the playing .avi.

Nếu bạn cần bảng điều khiển, chỉ cần kích chuột kép vào thanh công cụ điều khiển có

đuôi

avi.

IV. Bài tập củng cố

1. For each of the following statements select a matching phrase from the list below.

a. A number system to the base two.

b. Data which has been ordered and given some meaning.

c. The smallest unit for storing data in a computer system.

d. Data which is represented in the form of digits.

e. A number system to the base ten.

f. Raw facts put into the computer system.

Data decimal system binary system

Information bit digital data

2. Dịch đoạn văn sau sang tiếng Việt

Security and privacy on the Internet

There are a lot of benefits from an open system like the Internet, but we are also exposed to hackers who break into computer systems just for fun, as well as to steal information or propagate viruses. So how do you go about making online transactions secure?

Security on the Web The question of security is crucial when sending confidential information such as credit card numbers. For example, consider the process of buying a book on the Web. You have to type your credit card number into an order form which passes from computer to computer on its way to the online bookstore. If one of the intermediary computers is illustrated by hackers, your data can be copied. It is difficult to say how often this happens, but it's technically possible.

To avoid risks, you should set all security alerts to high on your Web browser. Netscape Communicator and Internet Explorer display a lock when the Web page is secure and allow you to disable or delete 'cookies'.

If you use online bank services, make sure your bank uses digital certificates. A popular security standard is SET (secure electronic transactions).

E-mail privacy Similarly, as your e-mail message travels across the net, it is copied temporarily on many computers in between. This means it can be read by unscrupulous people who illegally enter computer systems.

The only way to protect a message is to put it in a sort of 'envelope', that is, to encode it with some form of encryption. A system designed to send e-mail privately is Pretty Good Privacy, a freeware program written by Phil Zimmerman.

Network security

Private networks connected to the Internet can be attacked by intruders who attempt to take valuable information such as Social Security numbers, bank accounts or research and business reports.

To protect crucial data, companies hire security consultants who analyse the risks and provide security solutions. The most common methods of protection are passwords for access control, encryption and decryption systems, and firewalls.

Virus protection

Viruses can enter a PC through files from disks, the Internet or bulletin board systems. If you want to protect your system, don't open e-mail attachments from strangers and take care when downloading files from the Web. (Plain text e-mail alone can't pass a virus.)

Remember also to update your anti-virus software as often as possible, since new viruses are being created all the time.

3) Điền từ vào chỗ trống

database, field, layout, merging, record, sorted, updated

1. In order to personalize a standard letter you can use mail ….. (a technique which consists of combining a data base with a document made with a word processor).

2. Records can be automatically into any order.

3.You can decide how many fields you want to have on a……..

4. Files can easily be by adding new information or deleting the old one.

5. A program can be used to store, organize and retrieve information of any kind.

6.The of the records can be designed by the user.

7. Each piece of information is given in a separate…….

V. Tóm tắt nội dung bài học

Trong bài này chúng ta đã học những nội dung sau:

- The CPU is composed of the arithmetic-logical unit and control unit only.
- Bộ sử lý trung tâm chỉ bao gồm bộ phận logic số học và bộ điều khiển.
- The CPU is responsible for all the activities taking place within a computer.
- CPU quản lý tất cả các thao tác diễn ra trong một máy tính.
- Làm quen với các trạng từ chỉ thời gian: up to now, at present, already.
- Luyện tập với cấu trúc hỏi cách làm gì: How do I….. ?

UNIT 7: TYPES OF MEMORY

I. Mục đích của bài:

Qua bài này ta cần nắm được:

- Từ vựng chuyên ngành có liên quan.
- Ý chính của bài khoá.
- Cách đưa ra ví dụ trong một câu.
- Giao tiếp hội thoại trong bài.

II. Hướng dẫn bài học:

1. Từ vựng chuyên ngành:

Alloy	(n)	Hợp kim
Bubble memory	(n)	Bộ nhớ bọt
Capacity	(n)	Dung lượng
Core memory	(n)	Bộ nhớ lõi
Dominate	(v)	Thống trị
Ferrite ring	(n)	Vòng nhiễm từ
Horizontal	(a,n)	Ngang, đường ngang
Inspiration	(n)	Sự cảm hứng
Intersection	(n)	Giao điểm
Respective	(a)	Tương ứng
Retain	(v)	Giữ lại, duy trì
Semiconductor memory	(n)	Bộ nhớ bán dẫn
Unique	(a)	Duy nhất
Vertical	(a,n)	Dọc; đường dọc
Wire	(n)	Dây điện

2. Ý chính trong bài khoá:

- The most important function of a computer is to hold information in its memory in order to process it.

Chức năng quan trọng nhất của máy tính là lưu giữ thông tin trong bộ nhớ của nó để xử lý.

- Early computer memories had less storage capacity than newer ones.

Các bộ nhớ của các máy tính trước đây có dung lượng nhỏ hơn các máy tính hiện đại.

- The development of chips made it possible for minicomputers and microcomputers to be invented.

Sự phát triển của vi mạch dẫn tới sự ra đời của máy tính mini và vi tính.

- There are at least three different kinds of memory used in computers.

Có ít nhất ba loại bộ nhớ khác nhau được dùng trong máy tính.

Bài khoá:

As mentioned previously, one of the most important characteristics of a computer is its capability of storing information in its memory long enough to process it. Not all computers have the same type of memory. In this section, three types of memory will be discussed: core memory, semiconductor memory (or chip), and bubble memory.

The memory of the first computers was made up of a kind of grid of fine vertical and horizontal wires. At each intersection where the wires crossed, there was a small ferrite ring called a core (hence the name "core memory") which was capable of being either magnetized or demagnetized. Every intersection had its unique address: consequently, when an electrical current was passed through the wires, the magnetized as well as the unmagnetized cores were identifted by their respective addresses. Each core represented a binary digit of either 0 or 1, depending on its state. Early computers had a capacity of around 80,000 bits; whereas now, it is not surprising to hear about computers with a memory capacity of millions of bits. This has been made possible by the advent of transistors and by the advances in the manufacture of miniaturized circuitry. As the result, mainframes have been reduced in both size and cost. Throughout the 1950s, 1960s and up to the mid 1970s, core memory dominated the market.

In the 1970s, there was a further development which revolutionized the computer field. This was the ability to etch thousands of integrated circuits onto a tiny piece (chip) of silicon, which is a non-metallic element with semiconductor characteristics. Chips have thousands of identical circuits, each one capable of storing one bit. Because of the very small size of the chip, and consequently of the circuits etched on it, electrical signals do not have to travel far, hence, they are transmitted faster. Moreover, the size of the components containing the circuitry can be considerably reduced, a step which has led to the introduction of both minis and micros. As a result, computers have become smaller,faster, and cheaper. There is one problem with semiconductor memory, however: when power is removed, information in the memory is lost unlike core memory, which is capable of retaining information during a power failure.

Another development in the fteld of computer memories is bubble memory. The concept which consists of creating a thin film of metallic alloys over the memory board. When this film is magnetized, it produces magnetic bubbles, the presence, or absence of which represents one bit of information. These bubbles are extremely tiny, about 0.1 micrometer in diameter. Therefore, a magnetic bubble memory can store information at a greater density than existing memories, which makes it suitable for micros. Bubble memories are not expensive, consume little power, are small in size, and are highly reliable. There is probably a lot more to learn about them, and research in this field continues.

Comprehension

a. Main idea

Which statements do not express the main idea of the text?

0 1. Core memory was the fIrst type of computer memory developed.

0 2. There are at least three different kinds of memory used in computers.

0 3. Bubble memory is the latest development in computer memory.

b. Understanding the passage

Decide whether the following statements are true or false (T /F) by referring to the information in the text. Then make necessary changes so that the false statements become true.

1. The most important function of a computer is to hold information in its memory in order to process it.

2. Minicomputers, microcomputers, and mainframes all have the same kind of memory.

3. Semiconductor memory was developed before core memory and after bubble memory.

4. Core memory uses small metal rings which can be magnetized or unmagnetized.

5. The state of the core can be represented by either 0 or 1.

6. Early computer memories had less storage capacity than newer ones.

7. A transistor and a chip are the same kind of device.

8. The development of chips made it possible for minicomputers and microcomputers to be invented.

9. Bubble memory is smaller than a chip.

10. Bubble memory doesn't have very many advantages.

3. Ngữ pháp:

Cách đưa ra ví dụ trong một câu.

- Office workers use many computer applications such as word processing, spreadsheets and databases.
- Các nhân viên văn phòng dùng nhiều cá ứng dụng vi tính như sử lý dữ liệu, bảng tính và cơ sở dữ liệu.
- Computers have made radical changes in preparing income tax return. For example, in some countries you can now send your income tax return on disk.
- Máy tính đã tạo ra một sự thay đổi lớn trong việc hoàn trả lại thuế thu nhập. Ví dụ như ở một số nước bạn có thể gửi tiền thuế thu nhập lại từ đĩa.
- Students can make good use of computer technology at school. Essay writing, for instance, can be done using a word-processing program.
- Sinh viên có thể sử dụng có hiệu quả máy vi tính ở trường học. Ví dụ như có thể viết bài luận bằng chương trình soạn thảo văn bản.

4. Nâng cao:

An algorithm

Procedures are the set of instructions which specify what processing is to be performed.

These procedures are essential if the system is going to achieve its purpose and are stated in the form of an algorithm. An algorithm is a series of steps which, when performed correctly, will solve a problem in a finite time. Algorithms can be used to solve all kinds of problems.

III. Hội thoại:

-Dialogue 1:

Jim: I want to go to cyberspace. Who is a good ISP? Tôi muốn tới một cyberspace thì ISP nào là tốt?

Paul: Do you want one that's world-wide like Compuserve or a local one? Bạn muốn loại toàn cầu như computerserve hay loại nội hạt?

Jim: A local one's OK. Loại nội hạt.

Paul: Use Cyber-net. They have very good support. Hãy dùng Cybernet, nó có phần hỗ trợ rất tốt.

Jim: Do they also have newsgroups? Nó cũng có phần Newsgroup?

Paul: About 10,000, and they will give you a web page. Khoảng 10000 và chúng sẽ cung cấp cho bạn một trang web.

-Dialogue 2:

Jim: What is Gopher? Gopher là gì?

Paul: Gopher made information available over a network, but it isn't used anymore. Nó tạo tin trưên mạng nhưng bây giờ thì nó không được dùng nữa.

Jim: Why not? Sao vậy?

Paul: The World Wide Web has replaced it. World Wide Web thay thế nó.`

Jim: What other information tools can I use? Tôi có thể dùng các công cụ tin tức khác không?

Paul: Other examples are Telnet, FTP, and some of the new push technologies like Pointcast.

Ví dụ như Telnet, FTP và một vài công nghệ Push khác như Pointcast.

-Dialogue 3:

Jim: I signed up with an ISP, and they sent me the dial-up service guide. How do I get on-line? Tôi đã ký với một ISP và họ đã gửi cho tôi hướng dẫn sử dụng dịch vụ quay số. Vậy là thế nào để tôi trực tuyến?

Paul: You need the TCP/IP software that will let you connect to your ISP. Bạn cần phần mềm TCP/IP cho phép bạn kết nối tới ISP của bạn.

Jim: I found some on a CD-ROM in the back of an Internet magazine. Tôi đã thấy vài cái trên đĩa CD ở mặt sau của quyển tạp chí mạng.

Paul: After you've installed the software, you have to set up the login. Usually, this means a login name and password and telling the software the name of the name server, mail server and news server. Sau khi bạn cài đặt phần mềm bạn phải thiết lập một login. Thường thì điều này có nghĩa là tên và mật khẩu của login cho biết tên của phần mềm và tên của

server, server thư điện tử và server tin tức.

Jim: It sounds difficult.Nghe có vẻ khó nhỉ.

Paul: Not really, the Microsoft install wizard will do the hard part. Không thực sự là vậy, Microsoft lắp đặt wizard sẽ làm các việc khó rối.

IV. Bài tập củng cố

1) Dịch các câu sau sang Tiếng Việt

a .Secondary storage is limited in size and is often too small to contain all the necessary data.

b. Floppy disks should be kept in their. protective envelope when not in use.

c. Hard disks hold less data than floppy disks.

d. Magnetic fields do not destroy data on floppy disks.

e. Data is stored for later processing in primary storage.

f. Magnetic disks should not be kept near any device that generates a magnetic field.

2. Dịch các câu sau sang Tiếng Anh

Có 6 bước trong việc khai triển một giải pháp cho một vấn đề cần giải quyết trong máy tính :

- Nêu được vấn đề
- Lên kế hoạch giải quyết
- Tìm ra giải pháp
- Thực hiện giải pháp
- Thử nghiệm giải pháp
- Thông báo giải pháp

3) Điền từ vào chỗ trống

systems , memory, task , terminals, desktop, CAD, applications

The first microcomputers, also known as (1) ' ' PCs, were for single users only, and this clearly distinguished them from minicomputers. Another important difference was that 'minis' were much more powerful than 'micros': they could execute more than one (2)…… simultaneously and were used as file servers for (3)…….and workstations.

However, modern microcomputers have operating (4)…….. and network facilities that can support many simul taneous users. Today, most personal computers have enough (5)……..to be used for word processing and business(6)…….. Some PCs can even handle multitasking and (7)…….. applications. As a result, the division between 'minis' and 'micros' is now disappearing.

4) Dịch đoạn văn sau sang Tiếng Việt

Technical details

Information stored in the RAM is lost when the computer is turned off. Because of this,

data and applications are stored in either hard or floppy disks which provide a more permanent backing store.

Floppy disks are so called because they consist of flexible plastic material which has a magnetizable surface. They are available in two sizes: 5.25-inch disks are used in old computers, 3.5-inch disks are the most popular today.

The surface of a floppy disk is divided into concentric circles or 'tracks', which are then divided into 'sectors'. When you insert a blank disk into a disk drive, it must be 'initialized', or formatted, before information can be recorded onto it. This means that magnetic areas are created for each track and sector, along with a catalogue or 'directory' which will record the specific location of files.

When you save a file, the operating system moves the read/write heads of the disk drive towards empty sectors, records the data and writes an entry for the directory. Later on, when you open that file, the operating system looks for its entry in the directory on the disk, moves the read/write heads to the correct sectors, and reads the file into the RAM area.

V. Tóm tắt nội dung bài học

Trong bài này chúng ta đã học những nội dung sau:

- The development of chips made it possible for minicomputers and microcomputers to be invented.
- Sự phát triển của vi mạch dẫn tới sự ra đời của máy tính mini và vi tính.
- There are at least three different kinds of memory used in computers.
- Có ít nhất ba loại bộ nhớ khác nhau được dùng trong máy tính.
- Cách đưa ví dụ: for example, for instance
- Học các cấu trúc: signed up with an ISP, sent the dial-up service guide, get on-line.
- Học thêm khái niệm về thuật toán.

UNIT 8: DISK AND DISK DRIVE

I. Mục đích bài học:

Qua bài này học viên cần nắm vững các nội dung cơ bản sau:

- Từ vựng chuyên ngành liên quan trong bài.
- Kỹ năng đọc lướt để tìm chi tiết bài học được yêu cầu.
- Cách sử dụng đại từ quan hệ.
- Xác định loại từ (danh từ, tính từ…).
- Làm quen với một số liên từ.

II. Hướng dẫn bài học:

1. Từ vựng chuyên ngành có liên quan trong bài:

Cartridge	(n)	Đầu quay đĩa
Compiler	(n)	Trình biên dịch
Concentric	(a)	Đồng tâm
Conceptual	(a)	Thuộc về khái niệm
Cylinder	(n)	Trụ
Deteriorate	(v)	Phá hủy, làm hư hại
Platter	(n)	Đĩa phẳng
Random-access	(n)	Truy cập ngẫu nhiên
Rigid	(a)	Cứng
Schema	(n)	Lược đồ
Sequential-access	(n)	Truy cập tuần tự

2. Các ý chính trong bài đọc hiểu:

- There are many different types of magnetic disks and disk drives. Có nhiều loại đĩa từ và ổ đĩa khác nhau.
- Magnetic disks are of two kinds, namely floppy and hard. Có 2 loại đĩa từ: đĩa mềm và đĩa cứng.
- Information on a disk is organized in terms of blocks.Thông tin trên điã được tổ chức thành các khối.
- Recording heads are capable of transferring information from a disk to the memory of the computer. Đầu ghi có khả năng chuyển thông tin từ đĩa đến bộ nhớ của máy tính.

Bài khoá:

Tapes are an example of sequential-access memory technology; an example of random-access or direct-access secondary memory devices is the magnetic disk. It provides a large amount of storage and rapid retrieval of any stored information. All disks are made of

substance coated with metal oxide, and can therefore be magnetized.

Magnetic disks are of two kinds, namely floppy and hard. The hard disks, in turn, are subdivided into fixed-head and moving-head disks which are either cartridge or pack. Floppy disks, or diskettes as they are called, are made from plastic, which makes them very light, flexible, are quite inexpensive, whereas hard disks are made from a rigid material.

A disk cartridge is made of a circular disk called a platter, about the same size as a long-playing record, which can be magnetized on both sides. When a number of these circular platters are stacked one on top of the other, they are called a disk pack. How many platters there are in a disk pack varies depending on the manufacturer and the model.

The recording surface of a disk has concentric circles called tracks, which are similar to the grooves in a record. Information is stored on a track in magnetized spots called bits. These bits are similar to the bits in internal memory and are situated on the track such that usually every eight of them make up one byte.

To access information from a cartridge, it is mounted on a disk drive which is equipped with two recording heads, one for each side of the disk. The heads move radially along a line from the center to the outside from track to track. To access information from a disk pack, the recording heads are moved back and forth in the space between the platters by the access arms to which they are attached.

A stack of track is called a cylinder and it is accessed by all the recording heads acting at once. The recording capacity of a disk pack is measured in terms of a number of cylinders, the number of tracks, and the amount of data in each track.

Information on a disk is organized in terms of blocks, each having its own address, which consists of a cylinder number, a track number, and a record number. To access directly the necessary information, the recording heads first seek the required cylinder, then search to find the begining of the required record, and then transfer the information to the memory of the computer or to another form of storage, all of which is done in a few milliseconds.

Dust and dirt cause the recording condition of disks to deteriorate. As a result, data packs, which are disks with the recording heads sealed inside, were developed. They are more expensive than the nonnal disk packs but the drives on which they are mounted are cheaper than the normal disk drives.

Disk drives are of two kinds: drives with a single non-removable platter, and drives in which disks can be changed. The latter kind is further subdivided into top-loading single platter, front-loading single platter, and top-loading multiple platter. Some disk drives open from the top, where single platter disks are placed. Other drives open in the front and single platter disks, either hard disks or diskettes, are inserted. For very long storage, the top-loading multiple platter drives are used.

After being mounted on a disk drive, disks are kept spining at a very high and constant speed, thus allowing the recording heads to have direct access to the required information. For example, the pack on the IBM 3330 spins at 60 revolutions per second.

Comprehension

a. Main idea

Which statements do not express the main idea of the text?

01. There are many different types of magnetic disks and disk drives.

02. It takes a very short time to access information from disks.

03. Disks provide more storage than tapes, and therefore are more expensive.

b.Understanding the passage

Decide whether the following statements are true or false (T/F) by referring to the information in the text. Then make the necessary changes so that the false statements become true.

1.Magnetic disks are better than magnetic tapes only because they provide large amounts of storage.

2. Disk packs are fixed-head disks.

3. Not all disks are made from a rigid material.

4. There are two platters in each disk cartridge.

5. The number of platters in a disk depends on the company that makes it.

6. Bits are magnetized grooves in the surface of a disk.

7. To access information, the recordillg heads move from one groove to another.

8. Information on cylinders is accessed one track at a time.

9. The recording heads in a data pack are part of the disk and not the disk drive.

10. There are three kinds of disk drives.

3. Ngữ pháp

Cách sử dụng đại từ quan hệ và kỹ năng đọc lướt, xác định loại từ Làm kỹ phần bài tập và bài giải trong sách giáo khoa.

Các liên từ trong bài

- on the contrary: ngược lại
- on the one hand,… on the other hand: một mặt,… mặt khác
- by contrast: ngược lại
- conversely:ngược lại
- nevertheless: tuy nhiên
- in spite of: mặc dù
- even if/ even though: thậm chí
- however: tuy nhiên
- though/although: mặc dù

4. Nâng cao:

Algorithms are used to enable computers to solve particular problems and perform a variety of tasks. This involves a number of stages: first, the problem is analysed to determine its essential features. Secondly, the algorithm is written to solve the problem. Thirdly, the

algorithm is changed into a programming language which can be understood by the computer.

In order for the algorithm to be easily changed into a programming language, it needs to be written in a particular form. Algorithms can be expressed in a number of forms including English prose pseudocode and flowcharts.

ENGLISH PROSE

English prose is a description of the steps required to solve the problem in plain English without a structure. English prose is the simplest method of algorithm description, but since there are no formal rules it is difficult to apply it to complex problems.

PSEUDOCODE

Pseudocode is a limited form of English which relies on indenting lines and using keywords to highlight the structure of the algorithm.

It is written in text form which allows it to be easily modified with a word processor. Different standards of psuedocode have been established for different applications. The basic keywords are grouped together in pairs.

FLOWCHARTS

Flowcharts are a way of describing algorithms in pictorial form. They are often favoured since it is easier to follow the structure in a picture than in words; however, it is very easy to draw a flowchart which is complex and difficult to change into programming language.

The basic elements of a flowchart are a set of symbols (containing messages) and interconnecting lines with arrows: A set of standards for flowcharts has been established for a number of different applications. The four most commonly used symbols are shown in the following table.

III. Hội thoại:

Dialogue 1:

Linda: I received an Email today from a friend who lives in New York.

Hôm nay tôi đã nhận được một lá thư điện tử từ một người bạn sống ở New York.

Jim: What did he say? Anh ấy đã nói gì?

Linda: He's happy he can send Email to me on my birthday. He said that the telephone is too expensive. Anh ấy rất vui khi có thể gửi thư điện tử cho tôi vào ngày sinh nhật của tôi. Anh ấy nói rằng dùng điện thoại là rất đắt.

Jim: What's he doing now? Hiện nay anh ấy làm nghề gì?

Linda: I don't know, but his Email address ends in EDU so maybe he is working at a university. Tôi cũng không biết, nhưng địa chỉ thư điện tử của anh ấy có đuôi EDU nên có lẽ anh ấy đang làm việc tại một trường đại học.


intel
Pentium 4


AMD
Athlon


IBM

Dialogue 2:

Mary: I'm angry. I emailed Jim twice last week, and he didn't answer.

Tôi rất bực. Tuần trước tôi đã gửi thư điện tử cho Jim hai lần mà không thấy anh ấy trả lời.

Linda: He uses a dial-up IP connection to get his mail. Maybe he hasn't picked up his mail for a while.

Anh ấy dùng chế độ kết nối mạng qua điện thoại để nhận thư nên có lẽ anh ấy vẫn chưa nhận được thư trong một thời gian.

Mary: Do you think he got it? Bạn nghĩ là anh ấy đã nhận được chưa?

Linda: Wait a couple of days and try emailing him again.

Hãy đợi một vài ngày và thử gửi lại cho anh ấy.

IV. Bài tập củng cố

1) Chia động từ trong ngoặc

BASIC is a general purpose high-level programming language; originally designed (1) (develop)……. programs in conversational mode. The name BASIC (2) (stand)…….. for Beginner's All-purpose Symbolic Instruction Code. This language is (3) (find)…….on most microcomputers because it (4)(be)…….. user-friendly and easy to learn.

BASIC (5) (consist) of two main parts: the source language statements -the instructions which form the program -and the system commands which (6) (allow)..... us to control and edit a program.

BASIC enables the user (7) (interact) ……. with the program while it is being (8) (execute)…… which means that data can be (9) (input)…… while the program is running. Each instruction is (10) (give)……. a line number which defines the logical sequence of statements within the program. Some well-known system commands in BASIC are: RUN, which executes a program (11) (hold) …….in a BASIC file; LIST, which prints a listing of a program on the screen; and DELETE, which (12) remove)……..a program from a file.

A large number of PC manufacturers adopted BASIC. At present, however, there (13) be)……..so many versions and extensions that programs written for one type of PC are not directly portable to another.

2) The class is divided into six groups and allocated one area of study. Each group will write pproximately one page to briefly outline how'computers can be used in that area The assignment also requires each group to provide a short talk to outline their main poin.

Topics

. Computers in the home

. Computers in business

. Computers in banking

. Computers in government

. Computers in education

. Computers in transport.

3) Điền từ vào chỗ trống

type style, WYSIWYG, format, indent, font menu, justification, mail merging

1……. stands for 'What you see is what you get'. It means that your printout will precisely match what you see on the screen.

2. …….refers to the process by which the space between the words in a line is divided evenly to make the text flush with both left and right margins.

3. You can change font by selecting the font name and point size from the……. .

4. …… refers to a distinguishing visual characteristic of a typeface; 'italic', for example is a……that may be used with a number of typefaces.

5. The menu of a word processor allows you to set margins, page numbers, spaces between columns and paragraph justifications.

6. enables you to combine two files, one containing names and addresses and the other containing a standard letter.

7. An…….. is the distance between the beginning of a line and the left margin, or the end of a line and the right margin. Indented text is usually narrower than text without……

4) Dịch đoạn văn sau sang Tiếng Việt

The monitor

The characters and pictures that we see on the screen are made up of dots, also called picture elements (pixels). The total number of pixels in which the display is divided both horizon-tally and vertically is known as the resolution. If the number of pixels is very large, we obtain a high resolution display and therefore a sharp image. If the number of pixels is small, a low' resolution is produced.

Typical resolutions are 640 x 480 or 1,024 X 768 pixels. The diagrams show how pixel density affects the image: a larger number of pixels gives a much clearer image.

The cathode ray tube of the monitor is very similar to that of a TV set. Inside the tube

there is an electron beam which scans the screen and turns on or off the pixels that make up the image. The beam begins in the top left corner, and scans the screen from left to right in a continuous sequence, similar to the movement of our eyes when we read, but much faster. This sequence is repeated. 50,60 or 75 times per second, depending on the system. If the rate of this repetition is low we can perceive a flickering, unsteady screen, which can cause eye fatigue. However, a fast-moving 75 Hz 'refresh rate' eliminates this annoying flicker.

What we see on the screen is created and stored in an area of RAM, so that there is a memory cell allocated to each pixel. This type of display is called bit-mapped. On monochrome monitors, bits 0 are visualized as white dots, and bits 1 as black dots. On colour displays, there are three electron guns at the back of the monitor's tube. Each electron gun shoots out a beam of electrons; there is one beam for each ofthe three primary colours: red, green and blue. These electrons strike the inside of the screen which is coated with substances called phosphors that glow when struck by electrons. Three different phosphor materials are used - one each for red, green and blue. To create different colours, the intensity of each of the three electron beams is varied.

The monitor is controlled by a separate circuit board, known as the display adaptor, which plugs into the motherboard of the computer. Different boards drive different types of displays. For example, the VGA (video graphics array) card has become a standard for colour monitors.

Portable computers use a flat liquid-crystal display (LCD) instead of a picture tube. An CD uses a grid of crystals and polarizing filters to show the image. The crystals block the light in different amounts to generate the dots in the image.

V. Tóm tắt nội dung bài học

Trong bài này chúng ta đã học những nội dung sau:

- There are many different types of magnetic disks and disk drives. Có nhiều loại đĩa từ và ổ đĩa khác nhau.

- Magnetic disks are of two kinds, namely floppy and hard.Có 2 loại đĩa từ: đĩa mềm và đĩa cứng.

Học các liên từ

- on the contrary: ngược lại
- on the one hand,… on the other hand: một mặt,… mặt khác
- by contrast: ngược lại
- conversely:ngược lại
- nevertheless: tuy nhiên
- in spite of: mặc dù

- even if/ even though: thậm chí
- however: tuy nhiên
- though/although: mặc dù
- Học các khái niệm hành văn, Pseudocode hay dạng biểu đồ của thuật toán.

UNIT 9: PRINTER

I. Mục đích của bài học:

Trong bài này học viên cần nắm được:

- Từ vựng chuyên ngành có liên quan.
- Phương pháp so sánh
- ý chính của bài khóa
- Hội thoại giao tiếp.

II. Hướng dẫn cụ thể:

1. Từ vựng chuyên ngành:

Alternative	(n)	Sự thay thế
Apt	(v)	Có khả năng, có khuynh hướng
Beam	(n)	Chùm
Chain	(n)	Chuỗi
Clarify	(v)	Làm cho trong sáng dễ hiểu
Coil	(v,n)	Cuộn
Condense	(v)	Làm đặc lại, làm gọn lại
Describe	(v)	Mô tả
Dimension	(n)	Hướng
Drum	(n)	Trống
Electro sensitive	(a)	Nhiếm điện
Electrostatic	(a)	Tĩnh điện
Expose	(v)	Phơi bày, phô ra
Guarantee	(v,n)	Cam đoan, bảo đảm
Hammer	(n)	Búa
Individual	(a,n)	Cá nhân, cá thể
Inertia	(n)	Quán tính
Irregularity	(n)	Sự bất thường, không theo quy tắc
Matrix	(n)	Ma trận
Microfilm	(n)	Vi phim
Noticeable	(a)	Dễ nhận thấy
Phenomenon	(n)	Hiện tượng
Position	(n)	Vị trí
Prediction	(n)	Sự tiên đoán, lời tiên đoán
Quality	(n)	Chất lượng

Quantity	(n)	Số lượng
Ribbon	(n)	Dải băng
Set	(n)	Tập
Spin	(v)	Quay
Strike	(v)	Đánh, đập
Superb	(a)	Tuyệt vời, xuất sắc
Supervisor	(n)	Người giám sát
Thermal	(a)	Nhiệt
Train	(n)	Đoàn tàu, dòng, dãy, chuỗi
Translucent	(a)	Trong mờ

2. Ý chính của bài khóa:

- Basically, there are two types of printers: impact and non-impact.

Về cơ bản có 2 loại máy in: đập và không đập

- A printed output of the data-processing operation is valuable because it provides a permanent record of the results.

Sản phẩm được in ra của hoạt động xử lý sữ liệu là có giá trị vì nó cung cấp kết quả lưu trữ lâu dài.

- Chain and train printers give a better quality printing than drum printers.

Máy in xích cữ hay chuỗi có chất lượng tốt hơn máy in dùng trống.

- Line printers are much faster than other impact printers.

Các máy in dòng nhanh hơn rất nhiều so với các máy in đập khác.

- Thermal and electrostatic printers are capable of shading, whereas impact printers are not.

Các máy in nhiệt và tĩnh điện có khả năng tạo bóng, trong khi đó các máy in đập thì không có khả năng này.

- Laser writers are capable of printing more than one line at a time.

Các máy in laze có khả năng in nhiều hơn một dòng một lần in.

Bài khoá:

Printed output, which can be read by humans rather than by a computer, is the most common output. It is two-dimensional, consisting of characters within a line, and lines on a page.

One of the most difficult parts of printing output is the reaction of the user to the printed page, because somehow the printed output produces a response from the reader much like that of people to a roomful of new furniture. They have definite ideas where each piece should go, but after seeing it there, they are apt to change their minds. The same occurs when the reader first sees the printed output of a report, for instance.

No matter how simple or complex the data-processing operation is, the final results must be made available in a form usable by humans, and usually in a form of permanent record. This is the purpose of the printers used with computing equipment.

Printers vary in speed, size, and cost, and are designed to meet printing requirements ranging from roughly the speed and volume of a typewriter up to thousands of lines per minute.

There are two ways of printing: by impact (striking a character through a carbon, like a typewriter) or non-impact (photocopying, like an office copier). Impact printers are generally a drum, or a chain or a train. The drum has a spining cylinder for each character position in a line, and each cylinder contains all the characters in a character set. As each cylinder spins into the appropriate character position, it is hammered into the paper through a carbon ribbon. Drum printers generally give the lowest quality printing, because if the hammer hits a little early or late, the character will appear slightly above or below the line. This is noticeable on a printed line, giving it a wavy appearance.

In train or chain printers, the characters move lately across the page, and as the proper character moves into position, it is hammered onto the paper through a carbon ribbon. If the hammer hits a little early or late, the character will appear slightly to the right or left of its proper' position, but variations in horizontal spacing are not so noticeable to humans.

Other types of impact printers are the daisy wheel printer, the matrix printer, and the line printer. The daisy wheel printer uses a wheel with up to 100 characters, each being on an individual arm, so that only rotation is needed. The hammer hits a single letter, guaranteeing accurate positioning and uniform striking. This allows fast, quiet, and reliable operation, with superb print quality.

A matrix printer, on the other hand, uses pins to print a pattern of dots on paper. The characters are generated by selecting the appropriate combinations of pins in a rectangle of 5 rows by 7 columns or 9 columns. Each pin is equipped with a coil, which, when energized, throws the pin against the ribbon, printing a dot on the paper. For each character, seven or nine lines of dots have to be printed; however, the inertia is minimal, so fast operation is possible. The general advantages of using matrix printers are relative low cost, high speed, and quiet operation. The main disadvantage is the relatively poor quality of printing, which is sufficiently good for the eye, but not for reproduction or for business letters.

Finally, the printing mechanism in line printers is completely different from matrix printers. In the line printer, the character set to be printed is on a cylinder where each segment has the full set of characters in raised form around its edge. All segments are aligned with one another, that is, all the "As", for example, are in line. Whenever the printer is in print mode, the cylinder is rotating and each character in the set passes by the line to be printed as one complete revolution of the cylinder is made. The printer times the movement of a print hammer so that the character on the cylinder segment is brought into contact with the ribbon

and paper. One complete line of characters is printed during one revolution of the cylinder. It is interesting to note that all the "As" used in the line are printed first, then all the "Bs", and so on until fmally all the letters that make up the words have been printed and the line is complete. Whereas 200 to 600 lines per minute maximum are produced by the other printers, a line printer will operate up to 3,000 lines per minute.

There are several types of non-impact printers called thermal and electrosensitive printers (electrostatic printers). These printers use a special chemically treated paper and expose the characters onto it by some means such as laser. The characters are then fixed onto the paper by heating it. Because the printing element is simple and has no moving parts, these printers are inexpensive and silent. These newer devices are also much faster and allow any character set to be used. In addition to drawing lines and shading, light can be flashed through a translucent slide to expose a drawing onto the paper. Very fast non-impact printers are capable of rates up to 13,360 lines per minute.

In the largest computer installations, where cost is no longer a consideration, non-impact printers are used for very high speed. An ink jet printer operates by projecting small ink droplets and deflecting them electrostatically. Speeds of 40,000 lines per minute may be achieved. In the laser writer, the paper is charged electrostatically and attracts dry ink powder, as in a Xerox machine. The pattern is then baked in the paper. Many lines are printed simultaneously, and speeds of 20,000 lines per minute can be attained.

Multiple copies of output are often required, and can be produced either by printing the report several times or by using multipart paper, which consists of layers of paper separated by carbon sheets. However, nonimpact printers can not use such multipart paper.

Microfilm is often used as an alternative to the printer. The output is "printed" on microfilm rather than paper, which, in addition to being faster, also condenses large stacks of paper down into small amounts of microfilm with no special programming. The drawback of computer output microfilm (COM) is that it takes a special device to print the microfilm and a special viewer to read it.

a. Main idea

Which statement best expresses the main idea of the text? Why did you eliminate the other choices?

0 1. Line printers are the most superior of the impact printers because they are fastest.

0 2. Basically, there are two types of printers: impact and non - impact.

0 3. Microfilm is replacing the printer because it is a faster way of storing information.

b. Understanding the passage

Decide whether the following statements are true or false (T /F) by referring to the information in the text. The make necessary changes so that the false statements become true.

l. A printed output of the data - processing operations is valuable because it provides a permanent record of the results.

2. Chain and train printers give a better quality printing than drum printers.

3. Drum printers move sideways across the page.

4. The matrix printer is excelent for business letters because the print is very clear.

5. Line printers are much faster than other impact printers.

6. Line printers print one complete word at a time.

7. Thermal and electrostatic printers are capable of shading, whereas impact printers are not.

8. Where speed is required, line printers are used.

9. Laser writers are capable of printing more than one line at a time.

10. Computer microfilm of printed using the regular printer.

3. Ngữ pháp: So sánh

- Drum printers usually give the lowest quality printing.(the superlative)(So sánh cực cấp)

Máy in trống thường có chất lượng in kém nhất.

- Electrosensitive printers are inexpensive and silent, and these newer devices are also much faster, allowing any character set to be used. (non-equivalence)(So sánhhơn kém)

- Microcomputer are as efficient as minicomputers. Máy tính lớn cũng hiệu quả như máy tính nhỏ. (So sánh ngang bằng)

4. Nâng cao:

Control Structures

Control structures are used in an algorithm to control the flow of logic; that is, they indicate the order in which the statements are carried out. Algorithms are composed of three basic control structures: sequence/ selection and loop.

SEQUENCE

Sequence is where the steps are executed one after another. Each statement is performed only once and is then fol1owed by the next statement in order.

SELECTION

Selection allows for different steps to be carried out in different conditions. There are many situations when the normal sequence of one step followed by the next is not appropriate. Using selection, a condition such as a question can be given and, depending on the answer, different steps can be followed.

LOOP

A loop or repetition allows a number of steps to be repeated until some condition is satisfied. It is very important that each loop includes a condition that will stop the loop going on forever. If the condition is checked at the beginning of the loop, it is called a pre-test loop or guarded loop.

III.) Hội thoại:

Dialogue 1:

Jim: I want to get the newest version of Netscape. How do I do it?

Tôi muốn có phiên bản Netscape mới nhất. Tôi phải làm thế nào đây?

Paul: You will need to use FTP to download it from Netscape.

Bạn cần sử dụng FPT để tải nó từ Netscape xuống.

Jim: Is it difficult? Có khó không?

Paul: Not really. Go to the Netscape site, and choose the one you want.

Không, Bạn vào site Netscpape và chọn cái bạn muốn.

Jim: Anything else? Còn cái gì nữa không?

Paul: Yes, don't forget which folder it's in. Có, đưng quên thư mục của nó.

Dialogue 2:

Jim: Thanks for finding that new program. How much is it?

Cám ơn đã tìm thấy chương trình mới đó. Bao nhiêu tiền vậy?

Paul: It's shareware, and it costs $20. Nó là một loại phần mềm dùng thử và có giá là $20.

Jim: What's shareware? Phần mềm dùng thử là cái gì vậy?

Paul: Shareware is software you can try for free. If you like it, you send money to the author.

Đó là loại phần mềm bạn có thể thử dùng miễn phí. Nếu bạn thích bạn có thể gửi tiền cho

tác giả.

Jim: Oh, I see. Ồ, tôi đã hiểu.

Dialogue 3:

Linda: I have a few questions. Tôi có mấy câu hỏi.

Jim: What are they? Là gì vậy?

Linda: What are computers? How do we build them? How do we talk to them? Can they think?

Máy tính là gì? Họ thiết kế chúng ra sao? Làm sao chúng ta có thể nói chuyện với chúng? Chúng có thể nghĩ được à?

Jim: Wow! Those are hard questions. Maybe the answers are on the Internet.

Ồ, đấy là những câu hỏi khó, bạn có thể tìm thấy câu trả lời trên mạng.

Printers: How do you pick the right printer out of the hundreds you might find at a store or in a magazine?

Laser Printers: Laser quality is the best but they are the most expensive. They also are very fast. 600 dpi (dots per inch) is becoming standard. Color printers are very expensive.

Ink jet Printers: Ink jet produces good quality color documents at a good price. They are slower than Laser Printers and most are 300 dpi.

Dot Matrix: Very inexpensive, old and useful if you want to print forms.

What kind of printer have you used? If you want to print a company report, which printer would you use? How much does an ink jet printer cost?

Dialogue 4:

When problems happen.

Pair work. Practice the conversation.

Jim: What's the most important part of the computer?

Phần quan trọng nhất của máy tính là gì?

Paul. The most important part of your computer isn't the hard disk or the monitor or the printer. The most important part is the data you use.Phàn quan trọng nhất của máy tin không phải là ổ cứng haybộ điều khiển hay máy in. Phần quan trọng nhất chính là số liệu mà bạn dùng.

Jim: Why? Sao vậy?

Paul: It's the only part of your computer that can't be replaced. If you didn't made a back-up copy of it - and something bad happens to your computer - you will never see your data again. Đó là phần duy nhất trong máy tính bạn không thể thay thế. Nếu bạn không sao một bản dự phòng mà có hỏng hóc gì với máy tính-bạn sẽ không bao giờ còn thấy dữ liệu đó nữa.

Jim: I should buy a back-up tape drive.Tôi sẽ mua ổ sao dự phòng.

Paul: That's a very good idea.Ý kiến hay đấy.

IV. Bài tập củng cố

1) Chia động từ trong ngoặc

1. COBOL (use) for business applications.

2. Original programs (write) in a high-level language.

3. All computer languages (must translate) into binary commands.

4. The ADA language (develop) in 1979.

5. In the 1970s, new languages such as LISP and PROLOG (design)……. for research into Artificial Intelligence.

6. A new version of TutboPascal (release) just.

7. In the next century, computers (program)……. in natural languages like English or French.

2)Discussing whether the following statements are true or false.

- Unemployment is not related to computer technology.
- Computers replace unskilled jobs.
- Today's society requires people with higher skills than in the past.

- Some people are correct in blaming the computer for being retrenched.
- There are employment opportunities in the computer industry.
- The use of computers has had little affect on our employment.
- You will never have to update your skills throughout your working life.
- The problem of unemployment would disappear if computers were taken away

3. Dịch đoạn văn sau sang Tiếng Việt

Point and click!

Typically, a mouse is a palm-sized device, slightly smaller than a pack of cards. On top of the mouse there are one or more buttons for communicating with the computer. A 'tail' or wire extends from the mouse to a connection on the back of the computer.

The mouse is designed to slide around on your desktop. As it moves, it moves an image on the screen called a pointer or mouse cursor. The pointer usually looks like an arrow or I-bar, and it mimics the movements of the mouse on your desktop.

What makes the mouse especially useful is that it is a very quick way to move around on a screen. Move the desktop mouse half an inch and the screen cursor will leap four i~ches. Making the same movements with the arrow keys takes much longer. The mouse also issues instructions to the computer very quickly. Point to an available option with the cursor, click on the mouse, and the option has been chosen.

Mice are so widely used in graphics applications because they can do things that are difficult, if not impossible, to do with keyboard keys. For example, the way you move an image with a mouse is to put the pointer on the object you want to move, press the mouse button and drag the image from one place on the screen to another. When you have the image where you want it, you release the mouse button and the image stays there. Simi larly the mouse is used to grab one corner of the image (say a square) and stretch it into another shape (say a rectangle).

Both of these actions are so much more difficult to perform with a keyboard that most graphics programs require a mouse.

The buttons on the mouse are used to select items at which the mouse points. You position the pointer on an object on the screen, for example, on a menu or a tool in a paint program, and then you press the mouse button to 'select' it. Mice are also used to load documents into a program: you put the pointer on the file name and double-click on the name - that is, you press a mouse button twice in rapid succession.

V. Tóm tắt nội dung bài học

Trong bài này chúng ta đã học những nội dung sau:

- Basically, there are two types of printers: impact and non-impact.

Về cơ bản có 2 loại máy in: đập và không đập

- A printed output of the data-processing operation is valuable because it provides a permanent record of the results. Sản phẩm được in ra của hoạt động xử lý sữ liệu là có giá trị vì nó cung cấp kết quả lưu trữ lâu dài.

- Chain and train printers give a better quality printing than drum printers.

Máy in xích cữ hay chuỗi có chất lượng tốt hơn máy in dùng trống.

- Học cách so sánh ngang bằng, cực cấp, hơn kém.
- Học các cấu trúc: want to get the newest version of Netscape. How do I do it?
- You will need to use FTP to download it from Netscape.
- Học khái niệm quy trình tuần tự, lựa chọn hay vòng lặp.

UNIT 10: TERMINALS

I. Mục đích của bài học:

Học xong bài này bạn cần nắm được:

- Từ vựng chuyên ngành có liên quan.
- Ý chính của bài khoá.
- Cách viết phân loại và cấu tạo của một sự việc hay vật thể nào đó trong Tiếng Anh.
- Hội thoại giao tiếp hằng ngày.

II. Hướng dẫn bài học:

1. Từ vựng chuyên ngành:

Establish	(v)	Thiết lập
Permanent	(a)	Vĩnh viễn
Diverse	(a)	Nhiều loại
Sophisticated	(a)	Phức tạp
Monochromatic	(a)	Đơn sắc
Blink	(v)	Nhấp nháy
Dual-density	(n)	Dày gấp đôi
Shape	(n)	Hình dạng
Curve	(n)	Đường cong
Plotter	(n)	Thiết bị đánh dấu
Tactile	(a)	Thuộc về xúc giác
Virtual	(a)	Ảo

2. Ý chính của bài khoá:

- Modern terminals have numerous features which can be of use in computer-assisted instruction.

Các thiết bị đầu cuối hiện đại có rất nhiều tính năng có thể được sử dụng trong các lệnh trợ giúp của máy tính.

- The development of CRT terminals helped reduce the problem of wasted paper.

Sự phát triển các thiết bị đầu cuối CRT giúp giảm hẳn vấn đề lãng phí giấy.

- Terminals with video screens and hard copy output are useful for checking student record.

Các thiết bị đầu cuối với màn hình video và đ ầu ra có thể sao chép hữu ích với việc kiểm tra các bài lưu của sinh viên.

Bài Khoá:

As central computers became faster and more powerful, it was possible to establish many remote display stations from which operators could all use the same computer to display information and enter data. Later, even the small machines were equipped with a fairly large display screen and keyboard oriented towards use by a person with limited training, rather than by a highly skilled computer operator.

For many interactions with computers a permanent record is unnecessary; therefore, output that is scanned once and then thrown away proceduces a lot of wasted paper. To solve this problem cathode ray tube (CRT) terminal can be used. In addition to eliminating paper waste, these terminals are completely silent and frequently much safer than hard-copy terminals. Because of their speed and quietness, CRT tenninals are very useful interactive devices for use in offices and in other areas. The electronic circuitry used in them is very much the same as that in the familiar TV (video) set.

These display terminals are diverse and colourful. The original video output was single-colour (black and white) upper-case letters, but in more highly developed devices, lower-case letters can be displayed, and some give options of blinking and dual-density characters. Certain screens can produce "negative" (dark) characters on a bright' background or even make each character a different colour, if so desired. The latter is an important feature in order to catch someone's attention when a value is abnormal.

More sophisticated screens can generate continuous lines for graphic displays. The simplest of these are monochromatic and may have: strictly limited graphic applications. For example, they may use special characters strung together in order to form lines that look continuous, or they may be restricted regarding the number and the shape of curves that can be drawn at once. Multicolour pictorial graphics are extremely useful in emphasizing contrast, and have been used with good result in nuclear medicine, where differences in intensity would be too subtle if shades of only one colour were used.

The full power of visual display terminals may soon be realized. Already dynamic (motion) graphics output devices that display simple changing scenes have been developed for flight trainers and computer-generated movies. These devices could have an important impact on the use of computer-assisted instructions (CAI) techniques in school and colleges.

Besides screens, a wide variety of devices called plotters and are used to produce permanent copies of graphics output. The fIrst plotter developed used a pen that moved back and forth across the rotating drum to which paper was attached. These devices produced results which were both quite accurate and reasonably fast. Other plotters featuring a moving pen in two dimensions are relatively slow, because not only are they mechanical devices, but also most can produce only one continuously line at a time. However, the modem electrostatic plotter, an extension of the previously mentioned electrostatic printer, can obtain slightly less artistic results in seconds because it doesn't depend on a moving pen. This is because it electronically generates patterns of dots in a line across the page to make up a picture.

Graphic output may be an effective alternative to high-speed hard-copy output where graphs are more useful than columns of numbers for showing results. Most of the time, a graph is not only better than columns and pages of printed numbers, but also has the advantages of being quicker to produce and easier to understand and file. Pen plotters have been used a great deal in scientific research, where results are often expressed in terms of

graphs.

In recent years, new output devices have been developed to bridge the gaps between the various devices just described. For instance, terminals with both video screen and hard-copy output are now available. These devices don't waste paper, since hard copy is produced only when a permanent record is needed. Terminals of this nature are used in applications where relevant personal data is needed which can be corrected or edited on a screen before a hard copy is made.

University registration or patient registration are two areas where these devices save time and money, because a new hard copy need be produced only if something has changed from the previous registration or visit.

Finally, there are electrostatic printer-plotters available which produce both print and graphic displays with equal facility. It is possible with these devices to change the style and size of the letters at the users'wish and to have graphs and displays interspersed between the printed lines.

It is therefore very clear that in modern times, the converging technologies of printers, plotters, and graphic displays have resulted in the creation of a few hybrid devices capable of doing many things.

a. Main idea

Which statement best expresses the main idea of the text? Why did you eliminate the other choices?

01. CRT terminals are interactive peripheral devices which allow users access to the computer even from remote stations.

02. Modem terminals have numerous features which can be of use in computer- assisted instruction.

03. Some modem terminals are equipped with video screen and hard copy output.

b. Understanding the passage

Decide whether the following statements are true or false (T/F) by referring to the information in the text. The make necessary changes so that the false statements become true.

1. The development of CRT terminals helped reduce the problem of wasted paper.

2. Blinking is one of the features which display terminals are incapable of.

3. Multicolour graphs are more useful in modem medicine than monochromatic graphs.

4. Plotters can move in various directions, but the majority produce one continuous line at a time.

5. All plotters depend on a moving pen.

6. Terminals with video screens and hard copy output are useful for checking student records.

Terminals are considered peripheral devices but plotters are not.

Both interactive terminals and plotters have to be on-line at all times.

On modem terminals, it is possible to display both upper and lower

case letters.

7. Terminals are considered peripheral devices but plotters are not.

8. Both interactive terminals and plotters have to be on-line at all times.

9. On modem terminals, it is possible to display both upper and lower case letters.

10. Dynamic graphics were fIrst developed for computer – assisted instruction (CAI)).

3. Ngữ pháp:

Để phân loại sự vật hiện tượng ta có thể dùng các cấu trúc sau:

can be divided into: được chia thành

is made up of: được cấu tạo bởi

is compose of, comprise, consist of : bao gồm

Ví dụ:

1. The CPU is divided into three parts: the control unit, the arithmeticlogical unit, and memory.

2. The CPU has three parts: the control unit, the arithmetic-logical unit, and memory.

3. The CPU includes three parts: the control unit, the arithmeitc-logical unit and memory.

4. The CPU is made up of three parts: the control unit, the arithmetic logical unit, and memory.

5. The CPU is composed of three parts: the control unit. the arithmetic logical unit, and memory.

6. The CPU consist of three parts: the control unit, the arithmetic-logical unit, and memory.

4. Nâng cao:

A computer system

A computer can be considered as a system made up of hardware and software, which work together, processing data to achieve a purpose. Computer hardware refers to the parts of the computer system that you can see and hold, such as the keyboard, monitor, disk drive or printer.

Computer software refers to the computer programs or instructions which direct the hardware to perform particular tasks.

Computer systems can be viewed as five co-operating sub-systems. Input - entering data into the system for processing.

Output - presenting data/information which can be used outside the system

Processing - changing data to produce information

Storage - retaining data for later use by the system.

Control - co-ordinating the operations of the input, processing, output and storage sub-

systems.

These sub-systems work together. Data is entered using an input device.

It is then changed in some way to produce information, which is presented on an output device. If necessary, the data/information can be retained on a storage device for later use. To process the data the hardware needs dear instructions, or software, which tell it what to do.

III. Hội thoại:

Dialogue 1:

Jim: There are millions of web pages on the net. How do I find what I'm looking for? Có hàng triệu trang web trên mạng. Làm sao tôi có thể tìm cái gì?

Paul: Use a search engine like Alta Vista. Hãy dùng công cụ tìm kiếm như Alta Vista.

Jim: How does it work? Nó hoạt động như thế nào?

Paul: You enter the name or topic you are interested in then ask the search engine to find pages about your topic. Bạn hãy đánh tên hoặc chủ đề bạn thích sau đó yêu cầu công cụ tìm kiếm tìm các trang có thông tin liên quan đến chủ đề của bạn.

Jim: It must take a long time to search all those pages. Chắc phải mất nhiều thời gian để tìm thấy tất cả các trang này.

Paul: Not really, usually less than a minute. Không, thường chưa đầy một phút.

Dialogue 2:

Jim: I just downloaded a new program for writing web pages.Tôi mới tải được một chương trình mới để viết các trang web.

Linda: Make sure that you check it for viruses before you un-zip it. Chắc chắn là bạn đã kiểm tra vi rút trước khi bạn dùng nó.

Jim: That's a good idea. Ý kiến hay đấy.

Linda: Last month my brother downloaded an infected file. It was a big problem. Tháng trước, anh tôi tải một file nhiễm vi rút. Phiền lắm đấy.

Dialogue 3:

Linda: Where did the Web come from? Web xuất hiện từ đâu nhỉ?

Paul: It started in 1989 at a Laboratory in Europe known as CERN where physicists around he world work together. Nó bắt đầu vào năm 1989 tại một phòng thí nghiệm ở Châu Âu CERN nơi các nhà vật lý trên thế giới làm việc cùng nhau.

Linda: Why is it so popular? tại sao nó lại trở nên phổ biến?

Paul: Because it is easy to use and connects people around the world who want to locate

information and share knowledge. Bởi vì nó dễ sử dụng để kết nối mọi người trên thế giới với

nhau, những người muốn có được tin tức và chia sẻ kiến thức với nhau.

Linda: Thanks. I think I'll go surf for a new salad recipe.Cám ơn. Tôi nghĩ là tôi sẽ đi tìm

trên mạng một công thức nấu ăn mới cho món salad đây.

IV. Bài tập củng cố

1) Look at the groups of words and decide what part of speech each word is. Then complete the sentences with the correct word.

compile, compiler, compilation

1. Programs written in a high-level language require ……. or translation into machine code.

2. A …… generates several low-level instructions for each source language statement.

3. Programmers usually…… their programs to create an object program cand diagnose possible errors.

program ,programmable, programmers, programming

4. Most computer make a plan of the program before they write it. This plan is called a flowchart.

5. A computer …… is a set of instructions that tells the computer what to do.

6. Converting an algorithm into a sequence of instructions in a programming language is called .....

2) Dịch đoạn văn sau sang Tiếng Việt

Basic features of database programs

With a database you can store, organize and retrieve a large collection of related information on computer. If you like, it is the electronic equivalent of an indexed filing cabinet. Let us look at some features and applications.

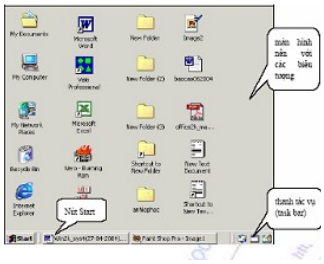
Information is entered on a database via fields. Each field holds a separate piece of information, and the fields are collected together into records. For example, a record about an

employee might consist of several fields which give their name, address, telephone number, age, salary and length of employment with the company. Records are grouped together into files which hold large amounts of information. Files can easily be updated: you can always change fields, add new records or delete old ones. With the right database software, you are able to keep track of stock, sales, market trends, orders, invoices and many more details that can make your company successful.

Another feature of database programs is that you can automatically look up and find records containing particular information. You can also search on more than one field at a time. For example, if a managing director wanted to know all the customers that spend more than £7,000 per month, the program would search on the name field and the money field simultaneously.

A computer database is much faster to consult and update than a card index system. It

occupies a lot less space, and records can be automatically sorted into numerical or alphabetical order using any field.



The best packages also include networking facilities, which add a new dimension of productivity to businesses. For example, managers of different departments can have direct access to a common database, which represents an enormous advantage. Thanks to security devices, you can share part of your files on a network and control who sees the information. Most aspects of the program can be protected by user-defined passwords. For example, if you wanted to share an employee's personal details, but not their commission, you could protect the commission field.

In short, a database manager helps you control The data you have at home, in the library or in your business.

V. Tóm tắt nội dung bài học

Trong bài này chúng ta đã học những nội dung sau:

- The development of CRT terminals helped reduce the problem of wasted paper.

Sự phát triển các thiết bị đầu cuối CRT giúp giảm hẳn vấn đề lãng phí giấy.

- Terminals with video screens and hard copy output are useful for checking student record.

Các thiết bị đầu cuối với màn hình video và đầu ra có thể sao chép hữu ích với việc kiểm tra

các bài lưu của sinh viên.

- Khái niệm về một hệ thống máy tính.

TÀI LIỆU THAM KHẢO

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MỤC LỤC