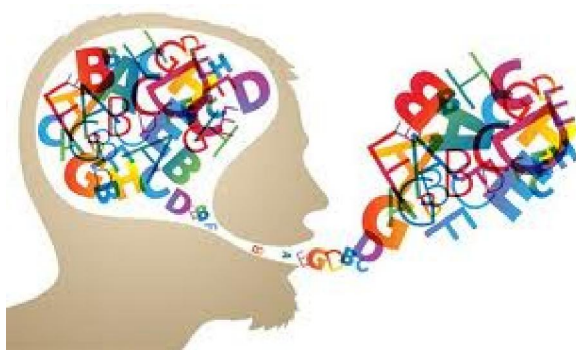


BỘ LAO ĐỘNG - THƯƠNG BINH VÀ XÃ HỘI
TỔNG CỤC DẠY NGHỀ



GIÁO TRÌNH
ANH VĂN CHUYÊN NGÀNH
NGHỀ: KỸ THUẬT SỬA CHỮA, LẮP
RÁP MÁY TÍNH
TRÌNH ĐỘ: CAO ĐẲNG

*(Ban hành theo Quyết định số: 120/QĐ-TCDN ngày 25 tháng 02 năm 2013
của Tổng cục trưởng Tổng cục dạy nghề)*



NĂM 2013

LỜI GIỚI THIỆU

Việc đọc tài liệu và hướng dẫn bằng tiếng Anh trong lĩnh vực công nghệ thông tin là một nhu cầu cấp thiết, tiến tới việc hội nhập CNTT trong vùng và trên thế giới.

Sách cập nhật và bao gồm những khái niệm cơ bản trong ngành công nghệ thông tin nhằm giúp học sinh, sinh viên mới làm quen với chuyên ngành này tiếp thu những kiến thức hữu ích về môn học.

Với 7 bài bao gồm nhiều chủ đề về công nghệ thông tin, sử dụng các bài đọc và hình minh họa được trích từ sách, báo, các tạp chí chuyên ngành máy tính, Internet, trang Web, sách hướng dẫn và những mẫu tin quảng cáo nhằm giúp học viên thu nhận và phát triển những kỹ năng cần thiết để môn học Công nghệ thông tin sau này. Giáo trình đặc biệt chú trọng vào việc phát triển kỹ năng đọc; những phát triển vốn từ của học viên; trong mỗi bài có phần bài tập ngữ pháp giúp học viên ôn lại những điểm ngữ pháp cơ bản. Phần cuối giáo trình là bảng tra cứu các thuật ngữ chuyên ngành đã được dịch sang tiếng Việt, đáp án và một số gợi ý giảng dạy cần thiết cho giáo viên.

Giáo trình dễ sử dụng cho cả giảng viên lẫn học viên nhờ cách trình bày rõ ràng, sử dụng nhiều hình ảnh và đồ họa. Đây là giáo trình hữu ích cho những người muốn có được những kỹ năng vốn có được coi là bắt buộc để có thể làm việc trong bất cứ lĩnh vực nào của ngành CNTT.

Tuy nhiên, những sai sót trong lúc biên soạn và trình bày là không thể tránh khỏi. Rất mong nhận được sự đóng góp của các đồng nghiệp và người học để cuốn sách này ngày càng hoàn thiện hơn.

Hà Nội, 2013

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MÔN HỌC:ANH VĂN CHUYÊN NGÀNH

Mã môn học: MH07

Vị trí, ý nghĩa, vai trò môn học

- Vị trí:
 - + Môn học được bố trí sau khi học xong các mô đun chung, trước các môn học/ mô đun đào tạo chuyên môn nghề.
- Tính chất:
 - + Là môn học kỹ thuật cơ sở chuyên môn nghề.
- Ý nghĩa, vai trò của môn học:
 - + Là môn học không thể thiếu của nghề Sửa chữa, lắp ráp máy tính

Mục tiêu của môn học:

- Phát triển những kỹ năng như: đọc hiểu, dịch các tài liệu tiếng Anh chuyên ngành Công nghệ thông tin;
- Đọc hiểu các thông báo của hệ thống và các phần mềm ứng dụng khi khai thác và cài đặt;
- Hiểu biết cấu trúc của máy tính và các chức năng của nó để có thể mua máy tính tại cửa hàng kinh doanh máy tính;
- Trình bày và thảo luận các chủ đề chuyên ngành của mình;
- Đọc hiểu các tài liệu đọc thêm bằng tiếng Anh và tóm tắt nội dung chính của tài liệu;
- Nắm được vốn từ vựng và ngữ pháp cơ bản của chuyên ngành CNTT.
- Mạnh dạn trong giao tiếp Anh ngữ chuyên ngành Công nghệ thông tin.
- Tự tin khi đọc và nghiên cứu tài liệu tiếng Anh chuyên ngành Công nghệ thông tin.

Nội dung chính của môn học

Mã Bài	Tên chương mục	Thời gian			
		Tổng số	Lý thuyết	Thực hành	Kiểm tra *
MH07-01	Section 1: Computers today computer applications - Match the pictures: Vocabulary - Language work: The Passive - Reading: - Other applications	6	4	2	
	BUYING A COMPUTER - Before you - Listening - Read and Talk				
MH07-02	Section 2: Input/output device Interacting with your computer. About the keyboard. Reading	8	4	3	1

	Language work: - Describing function - Using the Present Simple - Used to + Inf / Used for + V-ing - Emphasizing the function				
MH07-03	<u>Section 3: Storage devices</u> HARD DRIVES - Before you read. - Reading. - Follow-up: A hard disk advertisement. - Vocabulary OPTICAL BREAKTHROUGH - Warm up - Reading - Speaking - Crossword	8	4	4	
MH07-04	<u>Section 4: Basic software</u> OPERATING SYSTEM - Warm-up - Reading - Basic DOS commands - Language work: Revision of the Passives. - Quiz DATABASES - Warm-up - Reading - Puzzle - Language work: Requirements: Need to, have to, must - Writing	12	4	7	1
MH07-05	<u>Section 5: Creative software graphics and design</u> - Warm-up - Reading: - More about graphics. - Language work: Gerunds (-ing nouns)	10	5	4	1

	MULTIMEDIA. - Multimedia is here! - Reading. - Language work: If – Clause - Multimedia on the web				
MH07-06	<u>Section 6: Programing</u> - Warm-up - Reading: - Language work: Infinitive constructions	8	3	4	1
MH07-07	<u>Section 7: Computer tomorrow lans and wans</u> - Warm-up: - Reading: - Language work: Prepositional phrase of “reference” - Wans and worldwide communications - Speaking: - Writing:	6	2	4	

Section 1: Computers today computer applications

Mã Bài: MH07-01

Mục tiêu:

- Làm quen các từ vựng thường dùng trong máy tính.
- Rèn luyện cách phát âm đúng các từ vựng chuyên ngành Công nghệ thông tin.

Nội dung chính:

Computer Applications

Vocabulary:

Computer- aided design (CAD)(n):	Phần mềm thiết kế và vẽ bằng máy tính
Workstation (n):	Máy trạm, trạm làm việc
Timing system (n):	Hệ thống tính giờ
Real time(n):	Thời gian thực
Drug- detecting test (n):	Kiểm tra dopping
Transaction(n):	Giao dịch
Automatic cash dispenser(n):	Máy rút tiền tự động
Inventory(n):	Bảng kiểm kê
Interact(n):	Tương tác
Gadget(n):	Vật dụng
Computer- aided manufacturing software (n):	Phần mềm sản xuất hỗ trợ bằng máy tính

I. Match the pictures

A. Computers have many applications in a great variety of fields. Look at these photographs of different situations and match them with texts 1 to 4 below.

1. Airline pilot use computers to help them control the plane. For example, monitors display data about fuel consumption, and weather conditions. In airport control towers, computers are used to manage radar systems, and regulate air traffic.
2. Computers can help students perform mathematical operations and solve difficult questions. They can be used to teach courses such as computer-aided design, language learning, programming, mathematics, etc.
3. Computer is used with laser and barcode technology to scan the price of each item and present total at a supermarket.
4. Banks use computers to look after their customers' money. They also control the automatic cash dispensers which, by the use of a personal coded card, dispense money to clients.

B. Match these titles with the pictures

Using an automatic cash dispenser
 In education, computers can make all the difference
 Scanning the price of each item and present total at a supermarket
 Controlling the plane

C. Match the places in column A with the computer uses in column B

A	B
Banks	Provide information and entertainment
Factories	Look after, patient records and medicines
Homes	Calculate the bill
Hospitals	Control machines
Shops	Control our money

Now use the above words and phrases to fill the gaps in this paragraph about computer uses.

Computer are now part of our everyday life. In shop, they In factories, they..... In, they look after, patient records and medicines. When we have bank account, a computer..... In our homes computers.....

D. Look at text 1 again and discuss these questions.

1. How are/were computers used in your school?
2. What other areas of study would benefit from the introduction of computers?

For example:

In my school, computers are used to speed up the process of looking for references in the library.

II. Language work: The passive

Passives are very common in technical writing where we are more interested in facts, processes, and events than in people. We form the passive by using the appropriate tense of the verb 'to be' followed by the past participle of the verb we are using.

For example:

Active:

1. We sell computers. (simple present)
2. Babbage invented "The Analytical Engine". (Simple past)

Passive

1. Computers **are sold**. (simple present)
2. "The Analytical Engine" **was invented** in 1830. (Simple past)

Facts and processes

When we write or talk about facts or processes that occur regularly, we use the present passive.

Examples:

1. Data is transferred from the internal memory to the arithmetic-logical unit along channels known as buses.

2. The other users are automatically denied access to that record.
3. Distributed systems are built using networked computers.

A. Read the text below, which describes the insurance company's procedure of dealing with PC-user' problems. Fill in the gaps using the correct form of the verb in brackets.

All car¹.....(register) by the Help Desk staff. Each call ².....(evaluate) and then ³..... (allocate) to the relevant support group. If a visit ⁴.....(require), the user ⁵ (contact) by telephone, and an appointment ⁶..... (arrange). Most calls ⁷.....(deal with) within one working day. In the event of a major problem requiring the removal of a user's PC, a replacement can usually ⁸.....(supply).

B. Fill in the gaps in the following sentences using the appropriate form of the verb in brackets.

1. The part of the processor which controls data transfers between the various input and output devices.....(call) the control unit.
2. An operating system.....(store) on disk.
3. Instructions written in a high-level language.....(transform).
4. In the star configuration, all processing and control functions..... (perform) by the central computer.
5. When a document arrives in the mail room, the envelope.....(open) by a machine.

Events

When we write or talk about past events, we use the past passive. Let us look at some examples.

Example:

1. COBOL was first introduced in 1959.
2. Microsoft was founded on the basis of the development of MS/DOS.
3. The organization was created to promote the use of computers in education.

C. Fill in the gaps in the following sentences using the appropriate form of the verb in brackets.

1. Microsoft(found) by Bill Gate.
2. C language(develop) in the 1970s.
3. In the 1980s, at least 100,000 LANs(set up) in laboratories and offices around the world.
4. The first digital computer.....(build) by the University of Pennsylvania in 1946.
5. IBM's decision not to continue manufacturing mainframes.....(reverse) the year after it(take).

III. Reading

- A. **Write a list of as many uses of the computer, or computer applications, as you can think of.**
- B. **Now read the text below and underline any applications that are not in your list.**

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, and we pay bills prepared by computers.

What makes your computer such a miraculous device? Each time you turn it on, with appropriate hardware and software, it 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' list, account, 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.

IV. Other applications

- A. **In small groups, choose one of the areas in the diagram below and discuss what computers can do in this area.**

Useful words:

Formula 1: *racing car, car body, design, mechanical parts, electronic components, engine speed*

Entertainment: *game, music, animated image, multimedia, encyclopedia*

Factories: *machinery, robot, production line, computer-aided manufacturing software.*

Hospital: *patients, medical personel, database program, records, scanner, diagnose, disease, robot, surgery.*

Useful constructions

Computer are used to...

A PC can also be used for...

Computers can help...make...control...store...keep...provide...manage...give...perform...measure...provide access to...

- B. **Now write a short paragraph summarizing your discusstion. Then ask one person from your group to give a summary of the group's ideas to the rest of the class.**

Examples

In business, computers are used for financial planning, accounting, and specific calculations.

In the office, computer are used to write leetter and keep records of clients, suppliers, and employees.

Topic1.2 : Configuration

Vocabulary	
Accept(v)	Chấp nhận, tiếp nhận
Process(v)	Xử lý
Instruction(n)	Lệnh, chỉ dẫn,
Main memory(n)	Bộ nhớ chính
Peripheral device (n)	Thiết bị ngoại vi
Central processing unit(n)	Bộ xử lý trung tâm
Storage device(n)	Thiết bị lưu trữ
Input device(n)	Thiết bị đầu vào
Monitor(n)	Màn hình
Modem(n)	Bộ điều chế, mô dem
Configuration(n)	Cấu hình

I.Warm- up

In pairs, label the elements of this computer system. Then read match the number with the suitable name below.

II. Reading

A. Read the text and study the diagram below

What is a computer?

Computer is an electronic device that store, retrieves, and processes data, and can be programmed with instruction. A computer is composed of hardware and software, and can exist in a variety of sizes and configurations.

Information in the form of data and programs is known as **software**, and the electronic and mechanical parts that make up a computer system are called **hardware** . A standard computer system consists of three main sections: the central processing unit(CPU) , the main memory, and the peripherals.

Perhaps the most influential; component is the **central processing unit** . Its function is to execute program instructions and coordinate the activities of all the other units. In a way, it is the brain ò the computer.

The **main memory** holds the instructions and data which are currently being processed by the CPU.

The **peripherals** are the physical; units attached to the computer. They include attached to the computer. They include storage devices and input/output devices.

Storage devices (floppy, hard or optical disks) provide a permanent storage of both data and programs. **Disk drives** are used to handle one or more floppy disks. **Input devices** enable data to go into the computer's memory. The most common input devices are the **mouse** and the keyboard. **Output devices** enable us to extract the finished product from the system. For example, the computer shows the output on the **monitor** or prints the results onto paper by means of a **printer**.

These are the main physical units of a computer system, generally known as the **configuration**.

B. Use the information in the text and the diagram to help you match the terms in the box with the appropriate explanation or definition below.

- | | | | |
|------------|-----------------------|------------|----------------|
| A software | B. peripheral devices | C. monitor | D. floppy disk |
| E hardware | F. input | G. port | H. output |

1. The brain of the computer.
2. Physical parts that make up a computer system
3. Programs which can be used on a particular computer system.
4. The information which is presented to the computer.
5. Results produced by a computer.
6. Hardware equipment attached to the CPU.
7. Visual display unit.
8. Small device used to store information
9. Any socket or channel in a computer system into which an input/output device may be connected.

III. Language work: Contextual reference

Transitional markers are words used to link ideas together so that the text is easier to read. When pronouns such as *it, they, them, I, he, she, which, who, whose, that, such, one*, and demonstrative adjectives such as *this, that, these, and those* are used as transitional markers, they refer to a word, or words mentioned earlier in the sentence or paragraph. Their function is to take your thoughts back to something that has already been mentioned. Other words which are often used to refer backwards are *the former, the latter, the first, second, etc., the last*.

Sample paragraph:

A computer like any other machine is used because it does certain jobs better and more efficiently than any human. The speed at which a computer works means it can replace weeks or even months of pencil-and – paper work. Therefore, computers are used when the time saved offsets their cost, which is

one of the many reasons they are used so much in business, industry, and research.

Using the sample paragraph as a model, draw a circle around the word, or words, that the words in rectangles refer to. Then, join the ○ and □ the with arrow.

Modern accounting firms use spreadsheet software to do complicated calculations. They can provide their clients with an up-to-date report whenever it is needed. This software has many functions and can be integrated with other software. The spreadsheet's basic component is a cell. This may contain a formula which performs a mathematical operation. It could also contain a label or data. The former describes the information on the worksheet. The latter is the information itself.

The worksheet is the basic work area of a spreadsheet program. It is made up of cells arranged in rows and columns. The number of these varies depending on the software you are using. You can change the width and format of cells. Such parameters are usually quite easy to changes with just a few keystrokes.

IV. Read and guess

1. A 'Point and click here for power'
B 'Obeys every impulse as if it were an extension of your hand'
2. A 'Displays your ideas with perfect brilliance'
B 'See the difference-sharp images and a fantastic range of colors'
3. A 'I love this drive. It's quite and fast'
B 'With this, it's easy to back up your data before it's too late.'
4. A 'Power and speed on the inside'
B ' Let your computer's brain do the work '
5. A '...a big impact on the production of text and graphics'
B ' Your choice: a laser powerhouse '

V. Follow –up: Minis and Micros

Complete the text below with the words in the box.

System memory	terminals	desktop
CAD	applications	task

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 'micro': they could execute more than one (2) and workstations. However, modern microcomputers have operation (4)..... and network facilities that can support many simultaneous 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 'micro' is now disappearing.

Topic 1.3: Inside the system.

Integrated circuit(n)	Mạch tích hợp, IC
Execute(v)	Xử lý, thực thi
Control unit (n)	Đơn vị điều khiển
Arithmetic logic unit (ALU)(n)	Đơn vị logic số học
Register(n)	Thanh ghi
Keep track of(v)	Theo dõi
Internal memory	Bộ nhớ trong
Expansion slot(n)	Khe cắm mở rộng
Pulse(n)	Xung
Emit(v)	Bức xạ
Platform(n)	Một kiểu hệ thống máy tính (nền)
Sequential(adj)	Trình tự
Location(n)	Vị trí
Capacity(n)	Dung tích, dung lượng
Single in-line memory module (SIMM)(n)	Mô đun nhớ 1 hàng chân
Designate (v)	Chỉ định
Cache(n)	Bộ nhớ đệm có tốc độ cao
Firmware(n)	Chương trình cơ sở (phần sụn)

I. Warm-up

A. Read the advertisement and translate the technical specifications into your own language

B. Try to answer these questions. (If necessary look at the Glossary)

1. What is the main function of a microprocessor?
2. What unit of frequency is used to measure processor speed?
3. What does 'RAM' stand for?

II. Reading:

A. Read the text below and then sentences 1 to 8 that follow. Decide if the sentences are the true (T) or false (F), and rewrite the false ones to make them true.

What's inside a microcomputer?

The nerve centre of a microcomputer is the central processing unit or CPU. This unit is built into a single microprocessor chip – an integrated circuit – **Which** executes program instructions and supervise the computer's overall operation. The unit consists of three main parts:

- i. The **control unit**, which examines the instructions in the user's program, interprets each instruction and causes the circuits and the rest of the components- disk drives, monitor, etc. – to be activated to execute the functions specified;

- ii. **The arithmetic logic unit (ALU)**, which performs mathematical calculations (+, -, etc) and logical operations (and, or, etc);
- iii. **the registers**, which are high-speed units of memory used to store and control information. One of these registers is the program counter (PC) which keeps track of the next instruction to be performed in the main memory. Another is the instruction register (IR) which holds the instruction **that is** currently being executed.

One area where microprocessors differ is in the amount of data- the number of bits- **they** can work with at a time. There are 8, 16, 32 and 64- bit processors are able to address 4 billion times more information than a 32 –bit system (see Fig.1)

The programs and data which pass through the central processor must be loaded into the **main memory**(also called the **internal memory**) in order to be processed

Thus, when the user runs an application, the microprocessor looks for it on secondary storage devices (disks) and transfers a copy of the application into the RAM area. RAM (random access memory) is temporary, i.e. Its information is lost when the computer is turned off. However, the ROM section (read only memory) is permanent and contains instructions needed by the processor.

Most of today's computers have internal **expansion slots that** allow users to install adapters or expansion boards. Popular adapters include high-resolution graphics boards, memory expansion boards and internal modems .

The power and performance of a computer is partly determined by the speed of its microprocessor. A clock provides pulses at fixed intervals to measured in MHz (megahertz) and refers to the frequency at which pulses are emitted.

For example, a CPU running at 500 MHz (500 million cycles per second) is likely to provide a very fast processing rate and will enable the computer to handle the most demanding applications.

<i>The new generation of processors.</i> <i>Figure 1 shows the 600 MHz Alpha microprocessor from Digital, with a 64- bit RISC implementation (Reduced Instruction Set Computing) architecture, providing</i>	Figure1	<i>Other popular platforms are:</i> • <i>Intel's Pentium</i> • <i>Apple, IBM, and Motorola's Power PC</i> • <i>Sun' Super SPARC Silicon Graphics/Mips R10000 and</i>
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<i>lightning- fastperformance.</i>		<i>R5000</i>
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- 1.The CPU directs and coordinates the activities taking place within the computer system
- 2.The arithmetic logic unit performs calculations on the data.
- 3.32 –bit processors can handle more information than 64- bit processors.
- 4.A chip is an electronic device composed of silicon elements containing a set of integrated circuits.
- 5.RAM, ROM , and secondary storage are the components of the main memory.
- 6.Information cannot be processed by the microprocessor if it is not loaded into the main memory.
- 7.‘Permanent’ storage of information is provided by RAM (random access memory).
- 8.The speed of the microprocessor is measured in megahertz. One MHz is equivalent to one million cycles per second.

B.Contextual reference. What do the words in bold and *italics* print refer to?

1. .. **Which** executes program instructions and supervises...
2. ... the instruction **that** is currently being executed.
3. ... the amount of data – the number of bits – **they** can work with at a time.
4. ... the microprocessor looks for **it** on.
5. ...**Its** information is lost when the computer is turned off.
6. ... expansion slots **that** allow users to install adapters or expansion boards.

III.Language work: relative clauses

A. Study these sentences:

1. The microprocessor is a chip.
2. The chip processes the information provided by the software.
Both these sentences refer to chip . We can link them by making sentence 2 becomes ‘**Which**’.
Study these other pairs of sentences and note how they are linked
3. The teacher has just arrived.
4. The teacher is responsible for the computer centre.
3+4: The teacher *who is responsible for the computer centre* has just arrived.

B. Now link these sentences. Make the second sentence in each pair a relative clause.

1. The microprocessor coordinates the activities. These activities take place in the computer system.
2. Last night I met someone. He works for GM as a computer programmer.
3. A co-processor is silicon chip. The chip carries out mathematical operation at a very high speed.
4. A megahertz is a unit of frequency. The unit is used to measure processor speed.
5. A password is a secret word. The word must be entered before access is given to a computer system.
6. A gateway is a device. The device is used to interconnect different types of networks.
7. Here's the floppy disk. You lent me the disk.
8. A USB port is a gateway. The gateway is used to connect all kind of external devices to your computer.
9. Virus is a destructive software. This software cause damage to the data, the information or the hardware of the computer.

IV. Reading

A. Read the text and complete it with the phrases in the box.

- a. All the information stored in the RAM is temporary.
- b. Microcomputers make use of two types of main memory.
- c. ROM chips have 'constant' information
- d. The size of RAM is very important

Main memory: RAM and ROM

The main memory of a computer is also called the 'immediate access store', as distinct from any storage memory available on disks. (1).....: RAM and ROM, both contained in electronic chips connected to the main board of the computer.

RAM stands for 'random access memory' and is the working area of the computer, that is, the basic location where the microprocessor stores the required information. It is called 'random access' because the processor can find information in any cell or memory address with equal speed, instead of looking for the data in sequential order.

(2), so it is lost when the machine is turned off. Therefore, if we want to use this information later on, we have to save it and store it on a disk. When running an application, the microprocessor finds its location in the storage device (the floppy or hard disk) and transfers a temporary copy of the application to the RAM area. Consequently,(3)..... If we want to increase

the performance of a computer when several applications are open at the same time or when a document is very complex.

The RAM capacity can sometimes be expanded by adding extra chips. These are usually contained in single in-line memory modules or SIMMs, which are installed in the motherboard of the computer.

We can designate a certain amount of RAM space as a cache in order to store information that an application uses repeatedly. A RAM cache may speed up our work, but it means that we need enough internal memory or a special cache card.

ROM is an acronym for 'read only memory', which implies that the processor can read and use the information stored in the ROM chip, but cannot put information into it. (4).....including instructions and routines for the basic operations of the CPU. These instructions are used to start up the computer, to read the information from the keyboard, to send characters to the screen, etc. They cannot be changed and are not erased when the power is turned off. For this reason, the ROM section is also referred to as **firmware**.

B. As we have seen, there are three types of memory used by computers: RAM, ROM and secondary storage. Look through this list of features and decide which type of memory they refer to.

1. Any section of the main memory can be read with equal speed and ease.
2. It is available in magnetic, optical and video disks.
3. A certain amount of this memory can be designated as 'cache' memory to store information in applications that are used very frequently.
4. It stores basic operating instructions, needed by the CPU to function correctly.
5. Memory which can be expanded by adding SIMMs of 8 MB, 16 MB, 32MB, or other major increments.
6. Information is permanent and cannot be deleted.
7. You can save and store your documents and applications.

V. Vocabulary quiz

In groups of three, write answers to these questions. The winners are the group that answers the most questions correctly in four minutes.

1. What are the main parts of the CPU?
2. What is RAM?
3. What memory section is also known as 'firmware'?
4. What information is lost when the computer is switched off?
5. What is the typical unit used to measure RAM memory and storage memory?
6. What is the meaning of the acronym SIMM?
7. What is a megahertz?
8. What is the ALU? What does it do?

9. What is the abbreviation for ‘binary digit’?
10. How can we store data and programs permanently?

VI. Your ideal computer system.

A. Make notes about the features of the computer that you would like to have

CPU: Speed: Optical drives:.....
 Minimum/ maximum RAM:Monitor:.....
 Hard disk:..... Software:.....

B. Now describe it to your partner.

Useful expressions:

It has got.....

It's very fast. It runs at...

The standard RAM memory

And it is expandable.

The hard disk can hold

I need a Super VGA monitor because....

As for the Internet.....

Topic 1.4: Bits and bytes

Vocabulary	
Binary notation(n)	Biểu diễn nhị phân
Representation(n)	Diễn đạt, biểu thị
Figure (n)	Số liệu, biểu thị
Equivalent(adj)	Tương đương
Pixel(n)	Điểm ảnh
Refresh(v)	Làm tươi
Buffer(n)	Bộ đệm
Monochrome(n)	Đơn sắc
Color palette (n)	Bảng màu
Graphics adaptor(n)	Bộ thích ứng đồ họa
Primary color(n)	Màu chính, màu nguyên thủy

I. Reading

A. With a partner, try to answer these questions.

1. How many digits does a binary system use? What is a ‘bit’?
2. What is the difference between binary notation and the decimal system?
Give some examples.
3. What is a collection of eight bits called?

4. One kilobyte (1K) equals 1,024 bytes. Can you work out the value of these units?

1 megabyte =bytes/1,024 kilobytes
1 gigabyte =bytes/1,024 megabytes
(kilo- : one thousand)
(mega- : one million)
(giga- : one thousand million)

5. What does the acronym 'ASCII' stand for?

What is the purpose of this code?

B. Now read the text to check your answers or to find the correct answer.

Units of memory

Bits- basic units of memory

Information is processed and stored in computers as electrical signals. A computer contains thousands of electronic circuits connected by switches that can only be in one of two possible states: ON (the current is flowing through the wire) or OFF (the current is not flowing through the wire). To represent these two conditions we use **binary notation** in which 1 means ON and 0 means OFF. This is the only way a computer can 'understand' anything. Everything about computers is based upon this binary process. Each 1 or 0 is called a **binary digit or bit**.

Bytes and characters

1s and 0s are grouped into eight- digit codes that typically represent characters (letter, numbers, and symbols). Eight bits together are called a **byte**. Thus, each character in a keyboard has its own arrangement of eight bits. For example, 01000001 for the letter A, 01000010 for B and 01000011 for C.

The ASCII code

The majority of computers use a standard system of the binary represent characters (letters, numbers, and symbols). This is the American Standard Code for information Interchange, known popularly as 'ASCII' (pronounced 'ask-key'). There are 256 different ways of combining 0 and 1 in a byte. Therefore, they can give us 256 different signals. However, the ASCII code only uses 128 bytes to representations. What makes this system powerful is that these codes are standard.

Kilobytes, megabytes, and gigabytes.

In order to avoid astronomical figures and sums in the calculation of bytes, we use units such as kilobytes, megabytes, gigabytes. One kilobyte is 1,024