# CITW Revision chapter 1 until 10

# Section A

1. Define 4 examples of encryption.加密

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Method | Plaintext明文 | Ciphertext密文 | Explanation解释 |
| Transposition | Switch the order of characters转换字符的顺序 | Password | APSSOWDR | Adjacent characters swapped相邻字符交换 |
| Substitution | Replace characters with other characters用其他字符替换字符 | Access  病毒 | DRROYY | Each letter replaced with another每个字母都被另一个字母代替 |
| Expansion | insert characters between existing characters在现有字符之间插入字符 | Virus | SVXIXRXUXS | Letter X inserted before each character在每个字符前插入字母X |
| Compaction | Remove characters and store elsewhere删除字符并存储在其他地方 | Identification  识别 | IDNTFIATION | Ever third letter removed删除第三个字母 |

1. Define emerging technology and identify 4 examples of emerging technology been used widely

* knowledge base is expanding知识库正在扩大
* applications in existing industries are undergoing innovation e.g. handphones现有行业的应用正在进行创新，例如：手提电话
* new industries are being tapped正在挖掘新的产业

1. Explain any FIVE (5) ways to prevent hardware theft and vandalism in education institutions.

* Installation and use of **Alarm Systems** that go off when someone enters a room. 安装和使用报警系统，当有人进入房间时就会自动关闭。
* **Real Time Location Systems (RTLS)** for high-risk or high-value items, as it allow the user to always know the whereabouts of their hardware. This, however, is an expensive form of protection, thus it is usually used by organizations with hardware to protect. 实时定位系统(RTLS)用于高风险或高价值的项目，因为它允许用户始终知道其硬件的位置。然而，这是一种昂贵的保护形式，因此通常由具有硬件的组织使用。
* **Mini-security systems** for mobile devices, such as a shutting down of the device or sounding an alarm if the device moves outside a certain distance. 用于移动设备的小型安全系统，如关闭设备或在设备移动到一定距离后发出警报。
* Implementing the require of a **Password**Or**Biometrics**, to unlock mobile devices. Unfortunately this technique only prevents theft of the device to be useless to the thieves. It does not guard against vandalism. 实现对密码或生物特征的要求，以解锁移动设备。不幸的是，这种技术只能防止设备被盗，对窃贼来说是无用的。它不能防止破坏行为。
* **Physical Security Devices**, such as cables, that allow a user to lock their equipment to a desk, drawer or even the floor. This does not prevent vandalism though unfortunately. 物理安全设备，如电缆，允许用户将设备锁在桌子、抽屉甚至地板上。不幸的是，这并不能防止故意破坏。

1. Embedded computer is known as a special-purpose computer that functions as a component in a larger product. Identify any FOUR (4) examples of embedded computer.

* Consumer electronics 消费类电子产品
* Home automation devices 家庭自动化设备
* Automobiles 汽车
* Process controllers and robotics 过程控制器和机器人
* Computer devices and office machines 计算机设备和办公设备

1. Briefly identify 4 types of backup.

|  |  |
| --- | --- |
| TYPE | DEFINATION |
| Full backup  完全备份 | a full backup is when every single file and folder in the system is backed up. A full backup takes longer and requires more space than other types of backups but the process of restoring lost data from backup is much faster. 完全备份是指备份系统中的每个文件和文件夹。与其他类型的备份相比，完全备份需要更长的时间和更多的空间，但是从备份中恢复丢失数据的过程要快得多。 |
| Incremental Backup  增量备份 | With incremental backup, only the initial backup is a full one. Subsequent backups only stores changes that were made since the previous backup. The process of restoring lost data from backup is longer but the backup process is much quicker.对于增量备份，只有初始备份是完整备份。后续备份只存储自上次备份以来所做的更改。从备份中恢复丢失数据的过程更长，但备份过程快得多。 |
| Differential backup  微分备份 | Differential backup only saves the new data or data that has changed since the last full backup; it does not make a backup of all the data every single time. This type of backup requires more storage space than incremental backup does, however, but it also allows for a faster restore time.差异备份仅保存自上次完整备份以来更改的新数据或数据;它不会每次都备份所有数据。然而，与增量备份相比，这种备份需要更多的存储空间，但它也允许更快的恢复时间。 |
| Mirror backup  镜像备份 | A mirror backup is an exact copy of the source data. With a mirror, the only copy that is stored in your backup source is the data source as it existed during your last backup. The advantage of a mirror is that the backup does not contain old or files. 镜像备份是源数据的精确副本。对于镜像，存储在备份源中的惟一副本是上次备份时存在的数据源。镜像的优点是备份不包含旧文件或文件。 |

1. State types of e-commerce（**Electronic Commerce**）电子商务

* business to business
* customer to customer
* business to customer

1. Briefly explain 9 types of information system

Human Resource Information System (HRIS) 人力资源资讯系统

* Manages Human Resource functions管理人力资源职能
* Employee relationship management (ERM) system facilitates communication with employees员工关系管理(ERM)系统便于与员工沟通

Marketing Information System营销信息系统

* Software tools designed to support marketing decision making and allow marketers to gather information around-the-clock and preserve, analyze, evaluate, update and distribute information relevant to specific products, services or promotions. Market research system analyzes data gathered from surveys为支持市场决策而设计的软件工具，允许营销人员24小时收集信息，并保存、分析、评估、更新和分发与特定产品、服务或促销相关的信息。市场调查系统分析从调查中收集的数据

Enterprise Resource Planning (ERP) 企业资源规划

* Enterprise resource planning (ERP) is business process management software that allows an organization to use a system of integrated applications to manage the business and automate many back-office functions related to technology, services and human resources. 企业资源规划(ERP)是一种业务流程管理软件，允许组织使用集成应用系统来管理业务并自动化与技术、服务和人力资源相关的许多后台办公功能。
* ERP software typically integrates all facets of an operation — including product planning, development, manufacturing, sales and marketing — in a single database, application and user interface. ERP软件通常在一个数据库、应用程序和用户界面中集成操作的所有方面——包括产品规划、开发、制造、销售和营销。

Computer Aided Design (CAD) 计算机辅助设计

* Uses special software to aid in product design, drafting, engineering e.g view single/multiple layers of an airplane’s design使用特殊软件协助产品设计、制图、工程设计。查看飞机设计的单层/多层

Computer-aided Engineering (CAE)计算机辅助工程

* computers to test product designs e.g. test a car design or a bridge before it is built. Simulates effects of wind, weight, temperature on product shapes and materials测试产品设计的计算机，例如在建造前测试汽车设计或桥梁。模拟风、重量、温度对产品形状和材料的影响

Transaction Processing System (TPS) 交易处理系统

* A transaction process system (TPS) is an information processing system for business transactions involving the collection, modification and retrieval of all transaction data. Characteristics of a TPS include performance, reliability and consistency. TPS is also known as transaction as real-time processing. 事务处理系统(TPS)是用于收集、修改和检索所有事务数据的业务事务的信息处理系统。TPS的特性包括性能、可靠性和一致性。TPS也被称为事务和实时处理

Customer Relationship Management (CRM) 客户关系管理

* Manages information about customers, interactions with customers, past purchases, and interests. Mainly used in three departments :管理客户信息、与客户的交互、过去的购买和兴趣。主要用于三个部门:
* Marketing—learns about customers and then designs new products了解客户，然后设计新产品
* Sales—tracks sales process from initial contact through final purchase销售跟踪销售过程，从最初的接触到最终的购买
* Customer service department—tracks ongoing correspondence with customer客户服务部-跟踪与客户的通信

Material Requirements Planning (MRP) 物料需求计划

* MRP - Uses software to monitor and control production processes and is a production planning and inventory control system. 使用软件监控生产过程，是一个生产计划和库存控制系统。
* MRP integrates data from production schedules with that from inventory and the bill of materials (BOM) to calculate purchasing and shipping schedules for the parts or components required to build a product. 将来自生产计划的数据与来自库存和物料清单(BOM)的数据结合起来，以计算制造产品所需的零部件的采购和发货计划。

Management Information System (MIS) 管理信息系统

* A management information system (MIS) is a computerized database of financial information organized and programmed in such a way that it produces regular reports on operations for every level of management in a company. It is usually also possible to obtain special reports from the system easily. The main purpose of the MIS is to give managers feedback about their own performance; top management can monitor the company as a whole. 管理信息系统(MIS)是一种计算机化的财务信息数据库，其组织和编程方式使其能够为公司的每一级管理人员定期提供业务报告。通常也可以很容易地从系统中获得特殊报告。管理信息系统的主要目的是为管理人员提供关于他们自身表现的反馈;最高管理层可以监督整个公司。

Content Management System (CMS) 内容管理系统

* A content management system (CMS) is a software application or set of related programs that are used to create and manage digital content. Organizes and allows access to documents and other files. most CMS systems are now designed exclusively to manage content on the Web. 内容管理系统(CMS)是用于创建和管理数字内容的软件应用程序或相关程序集。组织和允许访问文件和其他文件。现在，大多数CMS系统都是专为管理Web上的内容而设计的。

1. Briefly explain 4 common cloud deployment models

* Public Cloud
* a publicly accessible cloud environment owned by a third-party cloud provider. Allows systems/services to be easily accessible to the public. May be less secure because of its openness e.g. e-mail第三方云提供商拥有的可公开访问的云环境。让公众容易使用系统/服务。可能因为它的开放性而不安全，例如电子邮件
* Private Cloud
* A private cloud is owned by a single organization. Allows systems/services to be accessible within an organization. Increased security because of its private nature私有云由单个组织拥有。允许在组织内访问系统/服务。因为它的私密性而增加了安全性
* Community Cloud
* A community cloud is similar to a public cloud except that its access is limited to a specific community of cloud consumers.  Allows systems/services to be accessible by group of organizations社区云与公共云类似，不同之处在于它的访问仅限于云消费者的特定社区。允许组织组访问系统/服务
* Hybrid Cloud
* A mixture of public and private cloud. Critical activities are performed using private cloud while the non-critical activities are performed using public cloud公共云和私有云的混合。关键活动使用私有云执行，而非关键活动使用公共云执行

1. Briefly explain 4 Risks of Cloud Computing

**Security & Privacy**

* Data and infrastructure management is provided by a third-party.A huge risk to handover sensitive data to Cloud Service Provider (CSP).Security breach results in loss of clients and business( credit card data and user login credentials) 数据和基础设施管理由第三方提供。将敏感数据移交给云服务提供商(CSP)是一个巨大的风险。安全漏洞导致客户和业务损失(信用卡数据和用户登录凭证)

**Lock in**

* Differences between vendor platforms may create difficulties in migrating from one cloud platform to another, which could equate to additional costs and configuration complexities. Gaps or compromises made during a migration could also expose your data to additional security and privacy vulnerabilities供应商平台之间的差异可能会造成从一个云平台迁移到另一个云平台的困难，这可能等同于额外的成本和配置复杂性。迁移过程中出现的漏洞或妥协也可能使您的数据暴露于额外的安全性和隐私漏洞

**Loss of control over end user actions失去对最终用户操作的控制**

* When companies are in the dark about workers using cloud services (For instance, a salesperson who is about to resign from the company could download a report of all customer contacts, upload the data to a personal cloud storage service, and then access that information once she is employed by a competitor.) 当公司对工人在黑暗中使用云服务(例如,一个销售人员即将辞去公司可以下载一份报告的所有客户联系人,将数据上传到个人云存储服务,然后访问这些信息一旦她受雇于一个竞争对手。)

**Stored Data is Lost存储的数据丢失**

* Data stored in the cloud can be lost for reasons other than malicious attacks. Accidental deletion of data by the cloud service provider or a physical catastrophe, such as a fire or earthquake, can lead to the permanent loss of customer data. 存储在云中的数据可能会因为恶意攻击以外的原因丢失。云服务提供商意外删除数据或发生火灾、地震等物理灾难，可能导致客户数据永久丢失。

1. Explain three basic service models of cloud computing:

* Service Models 服务模式- reference models in developing the Cloud Computing. Categorized into three basic service models:开发云计算的参考模型。分为三种基本服务模式:
* Infrastructure as a Service (IAAS) **为**基础架构服务**:** provides access to fundamental resources such as physical machines, virtual machines, virtual storage, e.g. servers:提供对基本资源(如物理机器、虚拟机、虚拟存储，如服务器)的访问
* Platform as a Service (Paas)为平台服务**:** provides the runtime environment for applications, development & deployment tools e.g. DB, Web/Application Server, Deployment Tools (e.g. Codeship - deployment solution that supports Rails, Node, Python, PHP, Java, Scala, Groovy)为应用程序、开发和部署工具(如DB、Web/应用服务器、部署工具(如Codeship—支持Rails、Node、Python、PHP、Java、Scala、Groovy的部署解决方案)提供运行时环境。
* Software as a Service (SaaS) 为软件服务**:** model allows to use software applications as a service to end users e.g. Email (YahooMail, Hotmail, Gmail), Google Apps, Salesforce, Citrix模型允许将软件应用程序作为服务提供给最终用户，如电子邮件(YahooMail, Hotmail, Gmail)，谷歌应用程序，Salesforce, Citrix

1. Explain 5 green technology areas:

* Energy - alternative energy, fuel, new techniques of generating energy for energy efficiency (solar energy, wind energy…) 替代能源、燃料、提高能源效率的新能源生产技术 (太阳能、风能……)
* Green Computing-virtualization, power management and optimization of IT infrastructure and electronic waste disposal to meet sustainability requirements. (computer/AC energy saving)虚拟化、电力管理和优化IT基础设施和电子垃圾处理，以满足可持续发展的要求。(电脑/ AC节能)
* Green Chemistry绿色化学 - The design and use of chemical products and processes to reduce the generation of hazardous substances. (Biodegradable Plastics) -设计和使用化学产品和工艺来减少有害物质的产生。(可生物降解塑料)
* Green Nanotechnology 绿色纳米技术- Nanotechnology refers to the manipulation of materials at the scale of the nanometer which is one billionth of a meter. Green Chemistry and Green Engineering –(recycle, eco-friendly materials)纳米技术是指在纳米尺度上操纵材料，纳米尺度是十亿分之一米。绿色化学与绿色工程-(循环再造、环保材料)
* Green Building-This surrounds everything from the raw building materials to the location of a building. (solar power, Energy efficient window systems)包括从建筑原材料到建筑位置的一切。(太阳能、节能窗系统)

1. Complete the table below:

|  |  |
| --- | --- |
| Examples of certificates | Name of the certificates |
| **Application Software Certifications**  应用软件认证 | Corporate trainers 企业培训师  Help desk specialists帮助台专家  Office managers/workers办公室经理/员工  Technology sales representatives技术销售代表  Technology teachers技术老师 |
| **Data Analysis and Database Certifications**  数据分析和数据库认证 | Data scientist数据科学家  Database administrators数据库管理员  Database analysts 数据库分析师  Digital forensics examiners数字取证审查员 |
| **Hardware Certifications**  硬件认证 | Computer repair technicians电脑维修技术人员  Corporate trainers企业培训师  Help desk specialists帮助台专家  System engineers and administrators系统工程师及管理员 |
| **Networking Certifications**  网络认证 | Hardware service technicians硬件服务技术人员  Network managers网络管理人员  Network engineers网络工程师  System administrators系统管理员 |
| **Operating System Certifications**  操作系统认证 | Hardware technicians硬件技术人员  Help desk specialists帮助台专家  Network administrators网络管理员  System administrators系统管理员 |
| **Program/Developer Certifications**  程序/开发者证书 | Game/Web developers游戏/ Web开发人员  Mobile application developers移动应用程序开发人员  Project leaders/managers项目主管/经理  Systems analyst系统分析师 |
| **Security Certifications**  安全认证 | Information security officers and managers资讯保安人员及经理  Law enforcement officials执法官员  Military intelligence officers军事情报官员  Network administrators网络管理员  Wireless network administrators无线网络管理员  Network security specialists网络安全专家  Security administrators安全管理员 |

# Section B

Define all these terms:

1. Broadband

signals that use wide range of frequencies. It’s high-speed Internet access that is always on and faster than dial-up access使用广泛频率范围的信号。它是高速互联网接入，总是开着，而且比拨号上网快

1. Internet Protocol (IP)

numbers that uniquely identify the location of each computer or device connected to the Internet or any other network唯一标识连接到Internet或任何其他网络的每台计算机或设备的位置的数字

1. Uniform Resource Locator (URL)

Unique address for a webpage and also is a special form of individual address of a certain resource on the Internet. It can refer to the website, some particular document, or an image. URL—网页的唯一地址，也是Internet上某一资源的特定地址的一种特殊形式。它可以指的是网站，一些特定的文件，或图像。

1. Infographic

Infographic 信息图形- visual representation of data and information, designed to communicate quickly, simplify complex concepts or present patterns or trends -数据和信息的可视化表示，旨在快速沟通，简化复杂的概念或目前的模式或趋势

1. Information System

Set of hardware, software, data, people and procedures that work together to produce information. E.g. instructions to accomplish activities硬件、软件、数据、人员和程序的集合，共同工作以产生信息。完成活动的指示

1. Human Resource Planning（Enterprise resource planning）ERP

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1. Computer Aided Design (CAD) 计算机辅助设计

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1. Transmission control protocol (TCP)传输控制协议

Network Protocol 网络协议- Mechanisms for devices to identify and connect with each other, including formatting rules that specify how data is packaged, messages are sent and received e.g. TCP/IP设备之间识别和连接的机制，包括指定如何打包数据、发送和接收消息的格式规则

1. Virtual Private Network (VPN)虚拟专用网络

provides secure connection for user connecting to company network server using the Internet 为用户使用互联网连接到公司网络服务器提供安全连接

1. File Transfer Protocol (FTP) (文件传输协议)

Internet standard that permits file uploading and downloading to and from other computers on the Internet FTP-允许文件上载和从因特网上的其他计算机下载的因特网标准

1. Hypertext Transfer Protocol (HTTP) (超文本传输协议)

set of rules that defines how webpages transfer on the Internet. 定义网页在互联网上如何传输的一组规则。

1. Hypertext Markup Language (HTML)

HTML is a set of symbols that developers use to specify the headings, paragraphs, images, links, and other content elements that a webpage contains. HTML是开发人员用来指定网页包含的标题、段落、图像、链接和其他内容元素的符号集

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1. Trojan Horse木马

Trojan Horse is a program that appears to be something safe but is performing tasks such as giving access to your computer or sending personal information to other computers. Trojans do not reproduce by infecting other files nor do they self-replicate.  Mostly Trojans are introduced via email attachments. 木马程序看起来是安全的，但正在执行的任务，如访问您的计算机或发送个人信息到其他计算机。木马不会通过感染其他文件进行复制，也不会自我复制。木马程序主要是通过电子邮件附件引入的。

1. Virus病毒

virus designed to spread from host to host and has the ability to replicate itself. 设计用来从一个宿主传播到另一个宿主的病毒，具有自我复制的能力。

1. Spyware间谍软件

Spyware is software that is installed on a computing device without the end user's knowledge.间谍软件是安装在终端用户不知情的电脑设备上的软件。

1. Worm蠕虫

Worm copies itself repeatedly, using up resources and possibly shutting down computer or network蠕虫会反复复制自己，消耗资源，可能还会关闭计算机或网络

1. Adware (广告软件)

A program that displays an online advertisement in a banner, pop-up window, or pop-under window on webpages, email messages, or other Internet services. 在网页、电子邮件或其他互联网服务的横幅、弹出窗口或弹出窗口中显示在线广告的程序。

1. Ransomware (勒索软件)

A program that blocks or limits access to a computer, phone, or file until the user pays a specified amount of money. 阻止或限制对计算机、电话或文件的访问的程序，直到用户支付一定金额的钱为止。

1. rootkit (隐匿技术)

A program that hides in a computer or mobile device and allows someone from a remote location to take full control of the computer or device.隐藏在计算机或移动设备中的程序，允许远程人员完全控制计算机或设备。

# Section C

State the differences between these two terms:

1. Macro Virus and Antivirus.

Macro virus 宏病毒– A macro virus infects a software program and causes a series of actions to begin automatically when the program is opened. It operates like a normal macro and often installs itself in the place of an existing macro (e.g., word processors and spreadsheet applications). 宏病毒感染一个软件程序，并导致一系列的动作自动开始当程序被打开。它像一个普通的宏一样运行，并且经常在现有宏的位置安装自己(例如，字处理器和电子表格应用程序)。

Antivirus反病毒程序- Identifies and removes computer viruses, worms and Trojan horses识别和删除计算机病毒，蠕虫和特洛伊木马

1. Full Backup and Incremental Backup

 a full backup is when every single file and folder in the system is backed up. A full backup takes longer and requires more space than other types of backups but the process of restoring lost data from backup is much faster. 完全备份是指备份系统中的每个文件和文件夹。与其他类型的备份相比，完全备份需要更长的时间和更多的空间，但是从备份中恢复丢失数据的过程要快得多。

With incremental backup, only the initial backup is a full one. Subsequent backups only stores changes that were made since the previous backup. The process of restoring lost data from backup is longer but the backup process is much quicker. 对于增量备份，只有初始备份是完整备份。后续备份只存储自上次备份以来所做的更改。从备份中恢复丢失数据的过程更长，但备份过程快得多。

1. Intranet and Extranet

**Intranet** - private network that is contained within an enterprise. It may consist of many interlinked local area networks内部网-企业内部的私有网络.它可能由许多相互连接的局域网组成

**Extranet** - portion of network that allows customers or suppliers to access parts of enterprise’s intranet外联网-允许客户或供应商访问企业内部网部分内容的网络部分

1. FOSSIL FUEL and RENEWABLE ENERGY

FOSSIL FUEL - a fuel formed by natural processes, such as anaerobic decomposition of buried dead organisms, containing energy originating in ancient photosynthesis. 一种由自然过程形成的燃料，如被掩埋的死生物体的厌氧分解，包含源自古代光合作用的能量。

RENEWABLE ENERGY - energy that is collected from renewable resources, which are naturally replenished on a human timescale, such as sunlight, wind, rain, tides, and waves. 从可再生资源中收集的能量，这些资源在人类的时间尺度上自然地得到补充，如阳光、风、雨、潮汐和波浪。

1. BIOMASS and traditional biomass 生物质能和传统生物质能

BIOMASS - organic material that comes from plants and animals, and it is a renewable source of energy. Biomass contains stored energy from the sun. Plants absorb the sun's energy in a process called photosynthesis. When biomass is burned, the chemical energy in biomass is released as heat. 有机材料来自植物和动物，是一种可再生能源。生物量包含太阳储存的能量。植物通过光合作用吸收太阳的能量。当生物质燃烧时，生物质能中的化学能作为热量释放出来。

Traditional biomass - Wood fuels, agricultural by-products and dung burned for cooking and heating purposes. In developing countries, traditional biomass is still widely harvested and used in an unsustainable and unsafe way. 用于烹调和取暖的木材燃料、农业副产品和粪便。在发展中国家，传统的生物量仍然被广泛收获，并以不可持续和不安全的方式使用。

1. Nitrous oxide and Water vapor

Nitrous oxide is released from bacteria in soil. Modern agricultural practices Key sources include agriculture (especially nitrogen-fertilised soils and livestock waste) and industrial processes. 一氧化二氮从土壤中的细菌中释放出来。现代农业实践的主要来源包括农业(特别是氮肥土壤和家畜粪便)和工业过程。

acts as a feedback to the climate. Water vapor cycles through the atmosphere quickly, evaporating from the oceans and elsewhere before coming back down as rain or snow. (rain acid, snow-melting) 作为对气候的反馈。水蒸气在大气中快速循环，从海洋和其他地方蒸发，然后以雨或雪的形式返回。(雨酸、雪融)

1. Carbon Dioxide and Methane

Carbon Dioxide: natural processes such as respiration and volcano eruptions and deforestation, land use changes, and burning fossil fuels. 二氧化碳:自然过程，如呼吸作用、火山爆发和森林砍伐、土地利用变化和燃烧化石燃料。

Methane - by product of agricultural practices-open fire (landfills, swamps, rice paddies) 沼气-农业工程的副产品-明火(堆填区、沼泽、稻田)

1. Computer crime and cybercrime

Computer crime **-** any illegal act involving the use of a computer or related devices计算机犯罪-任何涉及使用计算机或相关设备的非法行为

Cybercrime - online or Internet-based illegal act information transmitted over networks has a higher degree of security risk than information kept in organizations 网络犯罪——通过网络传输的网络或基于网络的非法行为信息比保存在组织中的信息具有更高的安全风险

1. Traditional Learning system/ Model and Modern Learning System

|  |  |
| --- | --- |
| **Education (traditional and modern-examples)** | |
| Traditional Learning system/ Model | Modern Learning System/Model |
| people learn from other people e.g. parents, teachers, employers using printed material like books, manuals人们向其他人学习，比如父母、老师、雇主，使用书籍、手册等印刷材料 | educators use computers to aid education. Schools and organizations equip labs and classrooms with computers教育工作者使用电脑来辅助教育。学校和组织为实验室和教室配备电脑 |

1. telemedicine and tele surgery

Telemedicine – Health care professionals in separate locations conduct live conferences on the computer远程医疗-在不同地点的卫生保健专业人员在计算机上进行实时会议

Telesurgery – Called Remote Surgery远程手术——称为远程手术Surgeon performs surgery on a patient not physically located in the same room as the surgeon外科医生为不在同一房间的病人做手术

1. Domain name and Domain name server

Domain name域名**-** text-based name that corresponds to the IP address对应于IP地址的基于文本的名称

DNS (Domain Name Server) **-** translates domain name to its IP address (域名服务器)-翻译域名到它的IP地址

1. HTTP (Hypertext Transfer Protocol) and HTTPS (Hypertext Transfer Protocol Secure)

HTTP (Hypertext Transfer Protocol) - set of rules that defines how webpages transfer on the Internet. (超文本传输协议)——定义网页在互联网上如何传输的一组规则。

HTTPS (Hypertext Transfer Protocol Secure)- and indicates that information transmitted over HTTP is encrypted and secure.  (超文本传输安全协议)表示通过HTTP传输的信息是加密和安全的。

1. FTP (File Transfer Protocol) and FTP server

FTP (File Transfer Protocol) - Internet standard that permits file uploading and downloading to and from other computers on the Internet FTP (文件传输协议)-允许文件上载和从因特网上的其他计算机下载的因特网标准

FTP server- computer that allows users to upload and/or download files using FTP. (文件传输协议服务器)允许用户使用FTP上传和/或下载文件的计算机