**Concept of IT**

1. What are the basic elements of a computer? / Write down the parts of a computer.

* There are some of the basic elements that make up a computer including:

‐ Central processing unit (CPU)

‐ Types of memory

‐ The hard disk

‐ Input and output devices.

1. Write down the parts of the CPU.

* The CPU contains following elements:

- Control Unit

- Arithmetic Logic Unit (ALU)

- Register

- BUS

3. Write down the functions of control Unit, ALU, Register and Bus.

* Control Unit: The control unit is responsible for controlling the sequencing and timing of the other elements making up the CPU.
* Arithmetic Logic Unit (ALU): The ALU performs the mathematical calculations using data stored within the CPU registers.
* Register: The registers are memory storage areas within the CPU that hold the data that is worked on by the ALU.
* BUS: The computer bus transports data between the memory and registers.

1. What is RAM?

* The RAM (Random Access Memory) within a computer is where the operating system is loaded to when end user switch on a computer and also where applications are copied to before starting an application, such as a word processor or database program.

1. What is ROM-BIOS?

* The ROM‐BIOS (Read Only Memory ‐ Basic Input Output System) chip is a special chip held on a computer's system (mother) board. It contains software which is required to make a computer work with the operating system, for instance it is responsible for copying the operating system into RAM during switch on a computer.

1. Where are the input and output ports are normally located?

* The input and output data are normally located at the back or on the side of a computer.

1. Give some examples of input and out ports.

* Examples of Input and Output ports are given below:
* USB(Universal Serial Bus) port
* Serial Port
* Parallel port
* Network Port
* Firewire port

1. What are the factors that affect computer performance?

* There are a wide range of factors that can affect the performance of a computer. These include:
* CPU speed
* RAM size
* Graphics and processor and memory
* Number of applications running

1. Write down the names of different types of memory used as computer memory.

* Names of different types of memory used as computer memory:
* **RAM (Random Access Memory)**: Random Access Memory (RAM) is the main 'working' memory used by the computer. Data and programs stored in RAM are volatile (i.e. the information is lost when the computer is switched off).
* **ROM (Read Only Memory):** Read Only Memory (ROM) as the name suggests is a special type of memory chip which holds software which can be read but not written to. A good example is the ROM‐BIOS chip, which contains read‐only software.
* **ROM-BIOS:** The 'Read Only Memory‐Basic Input Output System' chip is a chip located on the computer's system (mother) board, which contains software. This software performs a variety of tasks such as self diagnostics to check the computer is working ok and loading the operating system from the disk into the RAM.
* **Video (Graphics memory):** The on‐screen pictures are held in special memory chips called video memory chips; these chips are usually located on the video card. A modern motherboard is supplied with several Megabytes of video memory.

1. Write down the names of different types of Storage Media.
   * There are a range of storage media to choose from including:

* Internal Hard Disk
* External Hard Disk
* CDs
* DVDs
* Recordable CD and DVD drives
* USB Flash drives
* Memory Cards
* Network Drives and on line file storage

1. Where is the operating system stored?

* The operating System is stored in internal hard disks.

1. What is a memory card?
   * A memory card (also called a flash memory card) is a card containing memory chips that is often used in devices such as digital cameras, telephones, music players, video game consoles, GPS system and similar devices where there is a need to store data in a compact from, often using a battery power source.
2. What is input device?
   * Input devices are devices that allow end user to input information to the computer. Example: Keyboard, Mouse, scanners, tracker balls, touch pads, joy sticks, wed cams, digital camera and microphones.
3. Give some examples of output devices.

* Example of output device: Screens (Monitor), printers, speech synthesizer, projection devices, speakers and headphones.

1. Write down the names of different types printers.

* There are many different types of printers. These are:
  + Laser printers
  + Colour laser printers
  + Inkjet printers
  + Dot Matrix printers

1. Give two examples of input and output device with explanation.

* Two examples of input and output devices:

1. **Modem:** A modem can be used for downloading information from web sites and receiving emails. It can also be used for uploading and sending emails.
2. **Touch Screen:** A touch screen can display a menu system (output device), and accept input when people touch the menus displayed on the screen.
3. What is software?

* Software is the collection of instructions which makes the computer work. Software is held either on a computer’s hard disk, CD‐ROM, DVD or on a diskette (floppy disk) and is loaded (i.e. copied) from the disk into the computers RAM (Random Access Memory), as and when required.

1. What is an operating system?

* The operating system is a special type of program which loads automatically during starting of a computer. The operating system allows consumers to use the advanced features of a modern computer without having to learn all the details of how the hardware works.
* Example: Windows XP, Windows Vista, UNIX, Linux etc.

1. What is a software application program?

* An application program is the type of program which you use once the operating system has been loaded. Examples include word‐processing programs (for producing letters, memos etc), spreadsheets (for doing accounts and working with numbers), databases (for organizing large amounts of information), games programs and graphics programs (for producing pictures, advertisements, manuals etc).

1. Write down the differences between the operating system and application software.

* The operating system works closely with the hardware that you have installed within your computer. If interprets the input via the mouse or keyboard and outputs data to the screen.
* The application programs sit above the operating system, and make use of the functionally built into the operating system. They are specific to a particular task. For instance Microsoft Word is designed as a word processing program, while Microsoft Excel is a spreadsheet program.

1. Write down the accessibility options 0f a computer.

* There are a range of options to improve computer accessibility. These cover:

‐ Voice recognition software

‐ Screen reader software

‐ Screen magnifier software

‐ On‐screen keyboard.

1. What is client/server network?

* This term relates to the type of network where resources are kept centrally on the server and used locally by the client. The server tends to be a very powerful PC (or group of PCs), while each client workstation, which the users have, is less powerful.

1. What is LAN?

* A LAN (Local Area Network) is a system whereby individual PCs are connected together within a company or organization.

1. What is WLAN?

* A WLAN (Wireless Local Area Network) allows you to connect to other computers within LAN using wireless technology.

1. What is WAN?

* A WAN (Wide Area Network) as the name implies allows you to connect to other computers over a wider area (i.e. the whole world).

1. Write down the names of different types of Network.

* Names of different types of Network:
* LAN
* CAN
* MAN
* WAN

1. What are the differences between WWW vs. Internet?

* The World Wide Web (WWW) is just a small part of the Internet as a whole whereas The Internet relates to all the hardware and software involved, as well as the WWW.
* Internet includes FTP (File Transfer Protocol), email and newsgroups whereas The WWW is basically the text and pictures which can be viewed by using web browser, such as Microsoft Internet Explorer, or Netscape Navigator.

1. Define Internet, Intranet and extranet.

* **Internet:** The Internet is a global network of interconnected networks.
* **Intranet:** An Intranet is a smaller, closed version of the Internet, which can only be accessed by authorized member of an organization.
* **Extranet:** An Extranet is an Intranet which is partially accessible to authorized outsiders.

1. What is the basic difference between Intranets and Extranets?

* An Intranet is normally only accessible by members of the same company or organization; an extranet also allows outsiders who have been issued with a password to gain limited access to information held on a company network.
* Extranets are being used as a way for business partners to share information while intranets are being used only for company or organization purposes.

1. Write down the feature of a broadband Internet Connections.

* Features of a broadband Internet Connections
  + - * Broadband connection is always connected to the Internet.
      * Broadband connection is paid for via a flat monthly fee.
      * High Speed access
      * Risk of intruder attack

1. What does ‘Information and Communication Technology’ (ICT) mean?

* The term ICT cover a wide range of computer related fields including:
  + - * Installing and maintaining computer systems and applications
      * Designing, installing and maintaining computer networks
      * Data management
      * Computer hardware maintenance
      * Database and software design and many other areas!

1. What are the internet services for consumers?

* The Internet offers a vast range of services for consumers including
* E‐commerce
* E‐banking
* E-learning
* E-government.

1. What is e-commerce?

* The phrase e‐commerce is a buzzword which relates to buying or selling via the Internet.

1. Write down the advantage and disadvantage of e-commerce.

* Advantages of e-commerce:
* Services available 24 / 7
* Large stock range
* Ability to compare price
* Equal delivery to town and country
* Right to return defective goods
* Disadvantages of e-commerce:
* Possible credit card fraud
* Presence of fake website
* Absence of communication with a real person
* Insecurity of returning the faulty goods

**LIST OF ABBREBIATIONS**

|  |  |
| --- | --- |
| Item | Meaning |
| ADSL | Asymmetric Digital Service Line |
| ALU | Arithmetic Logic Unit |
| BIOS | Basic Input Output System |
| BPS | Bits Per Second |
| CAN | Campus/Corporate Area Network |
| CBT | Computer Based Training |
| CD | Compact Disk |
| CD-R | Compact Disk- Recordable |
| CPU | Central Processing Unit |
| DAT | Digital Audio Tap |
| DOS | Disk Operating System |
| DSL | Digital Subscriber Lines |
| DVD | Digital Versatile Disk |
| e-Mail | Electronic Mail |
| FAST | The Federation Against Software Theft |
| FTP | File Transfer Protocol |
| GB | Gigabyte |
| GHz | Giga Hertz |
| GPS | Global Positioning System |
| GUI | Graphical User Interface |
| ICT | Information and Communication Technology |
| IM | Instant Messaging |
| IP | Internet Protocol |
| IS | Information System |
| ISDN | Integrated Services digital Network |
| ISP | Internet Service Provider |
| IT | Information Technology |
| IT & T | Information Technology and telecommunication |
| KB | Kilobyte |
| Kbps | Kilobits Per Second |
| LAN | Local Area Network |
| MAN | Metropolitan Area Network |
| MB | Megabyte |
| Mbps | Mega Per Second |
| MHz | Mega Hertz |
| OCR | Optical Character Recognition |
| OS | Operating System |
| PB | Petabyte |
| PC | Personal Computer |
| PDA | Personal Digital Assistant |
| PSTN | Public Switched telephone Network |
| RAM | Random Access Memory |
| ROM | Read Only Memory |
| RSI | Repetitive Strain Injury |
| RSS | Really Simple Syndication |
| TB | Terabyte |
| UPS | Uninterruptible Power Supply |
| USB | Universal Serial Bus |
| VDU | Visual Display Unit |
| VoIP | Voice Over Internet Protocol |
| WAN | Wide Area Network |
| WLAN | Wireless Local Area Network |
| WWW | World Wide Web |