PROJECT 1

1. **Define the following:**
2. Computer :

Is an electronic device for storing and processing data. The storing and processing is typically done in binary form (1s,0s) according to the instructions given to it in a variable program.

1. **Operating system:**

**I**s a collection of software that directs a computer ‘s operations, controlling and scheduling the execution of other programs, manage storage, input/output, and communication resources.

C) **Computer Software:**

Is a program that enables the computer to perform a specific task.

D) **Computer Hardware:**

is the collection of physical parts of the computer system. It includes the computer case,keyboard, monitor, and mouse. It also includes the parts that are inside the computer case: hard disk drive, motherboard, video card etc. Computer hardware is what you can physically touch.

e) **CPU (Central Processing Unit )**

This is the brain of computer. It does all the computations/work for the computer. It measures about 1.5in x 1.5in.

F) **RAM (Radom Acess Memory):**

Is a type of memory. It is where information is stored is running. RAM provides computer devices with quick access to the operating system, applications, and needed data. Information is automatically pulled from RAM. We cannot control it. All data is lost when computer is shut down or reboot. RAM is not permanent (volatile).

G) **Application:**

Is a software program that runs on your computer. Web browsers, e-mail programs, word processors, games, and utilities are all applications. The word “Application” is used because each program has a specific application for the user.

H) **NIC card:**

A Network Interface Card (NIC) is a circuit board or card that is installed in a computer so that it can be connected to a network. e.g PCs and workstations on a Local Area Network (LAN) is designed on a NIC card.

1. **ROM(Read-Only Memory):**

Is more permanent than ROM. Data is not lost when power is turned off. Data stored can only be read but cannot be changed. A special operation is required for data to be change.

J) **The Motherboard:**

It is a circuit board that allows the CPU to interact with other parts of the computer.

K)  **BIOS (Basic Input /Output system) :**

Is a set of instructions in firmware that control input and output operations. That is manages data flow b/w Operating system and attached devices. e.g mouse, keyboard etc.

L) **HMDI (High-Definition Multimedia Interface ):**

Is a specification that combines video and audio into a single digital interface for use with Digital Versatile Disc(DVD) players, Digital Television (DTV) players and other audiovisual devices.

M)  **URL (Uniform Resource Locator)**

Is the global address of documents and other resources on the World Wide Web. It is a type of Uniform Resource Identifier (URI); the generic term for all types of names and addresses that refer to objects on the World Wide Web.

1. **Build a computer from scratch**

**Why do I need to build a computer?**

1. **To access/ process information**
2. **To monitor security in an environment (House, company, hospital, church etc.)**

**What is required to build a computer system?**

1. **Case**
2. **motherboard**
3. **RAM**
4. **Hard disk drive**
5. **CPU**
6. **Power supply**
7. **monitor**
8. **Video card**
9. **Anti-static wrist band**
10. **fan**
11. **CPU cooling heatsink**

**All the above depend on the capability of the Motherboard.**

**Must Consider the capacity of the following:**

**Motherboard**

**RAM**

**CPU**

**Hard disk drive / SSD (Solid State Drive)**

1. **What role is the NIC playing in the computer?**

**Is computer hardware that connects a computer to a computer network.**

1. **Check your computer’s specifications**
2. **CPU size : 2.3GHz**
3. **Hard drive: 148 GB**
4. **Memory:6.00GB**
5. **What is the difference between ROM and RAM?**

**ROM data and program stored by the manufacturer** while RAM stores data and program during and after processing.

**ROM stores information permanently while RAM stores information temporarily.**

**ROM processing time is very fast but uses very little power while RAM processing time is very fast but uses a lot of power.**

1. **What is the difference between RAM and Hard drive?**

The computer can access anything stored in RAM nearly instantly BUT data on the Hard Drive need to be located, read, and sent to RAM to be processed. low on disk space = too programs or files on your computer.

1. **what program is responsible for checking all the hardware during boot up?**

**BIOS**

1. **what is the difeerence between NIC and USB port?**

NIC (Network Interface Card) is a circuit board or card installed on a computer so that it can be connected to network WHILE USB port is used to connect peripheral devices to a computer.

1. What is putty? and what is it use for?

Putty is a free and open source terminal emulator, serial console and network file transfer application. It supports network protocols such as SCP, SSH, Telnet, rlogin and raw socket connection.

It use for remote access of other computers.

1. what is the difference between 64bits system and a 32bits system? which is better?

The 64-bit and 32-bit how the CPU handles transfer of information. The 64-bit handles large amounts of RAM more effective than 32-bit system. 64-bit system is better.

1. What is the difference between OS and an Application?

Is program that acts as an interface between the user the hardware. i.e it lets the user interact with the computer hardware indirectly WHILE

An Application is program or a group of programs that is designed for the end user, It permits the user to perform a group of coordinated functions, task, or activities. It cannot run by itself but depends on the OS to execute.