01. To charge a selected text to all capital letters, click the change case button and then click – **caps lock**

02. A person who used his or her expertise to gain access to other people's computers to get information illegally or do damage is a – **hacker**

03. Where you are likely to find an embedded operating system? – **on a desktop operating system**

04. Reusable optical storage will typically have the acronym – **RW**

05. An online discussion group that allows direct live communication is known as– **chat group**

06. Codes consisting of lines of varying widths or lengths that are computer readable are known as – **a magnetic tape**

07. A web site's main page is called as – **home page**

08. Which of the following is a program that uses a variety of different approaches to identify and eliminate spam? – **any spam program**

09. To access properties of an object, the mouse technique to use is –**right clicking**

10. Computers use the _____ number system to store data and perform calculations – **binary**

11. Phishing trips are attempts by individuals to obtain confidential information from you to falsifying their identity

12. Sharing copyrighted files without permission breaks copyright laws

13. The following can be used to select the entire document – **Ctrol +A**

14. The system unit – is the container that houses electronic components

15. The simultaneous processing of two or more programs by multiple processors is – multiprocessing

DEFINITIONS OF OPERATING SYSTEM (OS) :-

An operating system consists of a set of programs, which controls, coordinates and supervises the activities of the various components of a computer system.

In other words "An operating system is a program which acts as an interface between a user and hardware".

FUNCTIONS OF OPERATING SYSTEM

Operating system is a large and complicated software consisting of several components. It is responsible for managing all the resources attached to a computer system.

Following functions are provided

PROCESS MANAGEMENT: 'A process is a program under execution'. Process management is the important part of an operating system which enables the activities of planning, monitoring and performance of a process.

MEMORY MANAGEMENT: Memory management of an operating system takes care of allocation and de-allocation of main memory to various processes.

FILE MANAGEMENT: File management module of operating system manages files held on various storage devices as well as transfers file from one storage device to another.

INPUT/OUTPUT MANAGEMENT: The input/output management module of the OS coordinates and assigns different input and output devices, namely terminals, printers, disk drives, tape drives etc. it hides the complexity of interfacing to devices from user program and the user.

The input/output management includes the following features:
1. SPEED
2. UNIT OF TRANSFER
3. DATA REPRESENTATION
4. SHARING
5. BUFFERING
6. SPOOLING

SOME COMPUTER ABBERVATION :-

CDMA: Code Division Multiple Access

DBMS: Data Base management System

DHTML: Dynamic Hyper text Markup language

DRAM: Dynamic Random Access Memory

DRDO: Defense research and Development Organization

TIME TO REVISE

1. Software for originating storage retrieval of information is a (n)

(i) operating system   (ii) database

(iii) database program   (iv) database warehouse

Answer: (iv)

2. Which of the following is not a function of the control unit?

(i) Read instruction   (ii) Execute instructions

(iii) Interpret instructions   (iv) direct operations

Answer: (iv)

3. =Sum (B1 : B8) is an example of a

(i) function   (ii) formula

(iii) cell address   (iv) value

Answer: (ii)

4. The physical arrangement of elements on a page is referred to as a document's

(i) features   (ii) format

(iii) pagination   (iv) grid

Answer: (ii)

5. The main directory of a disk is called the ……………..

(i) root   (ii) sub

(iii) folder   (iv) network

Answer: (i)

6. What is the difference between a CD-ROM and a CD-RW?

(i) They are the same, just two different terms used by different manufacturers

(ii) A CD-ROM can be written to and a CD-RW cannot

(iii) A CD-RW can be written to, but s CD-ROM can only be read from

(iv) A CD-RW holds more information than a CD-RW

Answer: (iii)

7. The measure the speed of the processor, ……………….

(i) processing speed   (ii) clock speed

(iii) memory   (iv) unit

Answer: (ii)

8. Who is founder of Wikipedia?

(i) Jimmy Wells   (ii) John Smith

(iii) Stephen Hawkins (iv) Albert Brown

Answer: (i)

9. The main circuit board of the system unit is the

(i) Computer Program   (ii) Control unit

(iii) Motherboard   (iv) RAM

Answer: (iii)

10. A central computer that holds collections of data and programs for many PCs, workstations and other computers is a

(i) supercomputer   (ii) minicomputer

(iii) laptop   (iv) server

Answer: (iv)

HISTORY OF COMPUTER DEVELOPMENT IS BROADLY DIVIDED IN FIVE GENERATIONS

First Generation : 1946-1959

Vacuum Tubes

In first stage of computer development we used vacuum tubes. These vacuum tubes are slower

in processing speed and used machine language which was hard to understand as instruction was in 0 and 1.These first generation computer was bigger in size even occupied entire room , generates lot of heat and was very expensive So these cant be used continuously for longer duration of time

Second Generation : 1959-1965

Transistor

In second generation of computer we used transistors. In Second generation vacuum tubes was replaced with transistor. Second generation saw the improvement in speed and size but heat produced was still damaging to the system

Language used was assembly language , which means it was easy to understand as instructions consist of words.

Third Generation : 1964-1971

Integrated Circuits

Third generation saw the used to integrated circuits. Transistor were miniaturized and put on chip to foam integrated circuit .Which was faster in processing speed, store instruction in memory and reduced in size. These extremely small electronics can perform calculations and store data using either digital or analog technology.

Fourth Generation :1972-2010

Microprocessor

Crucial stage in the development of computer was microprocessor . Intel was first to develop microprocessor. In microprocessor ten of millions of transistor fabricated on single chip which is very small in size and also have very high processing capabilities

Microprocessor support multiple task This generation saw the development of computer for

Fifth Generation : 2010- Onwards

Artificial Intelligence

Fifth generation saw the advent of artificial intelligence, features like voice recognition are made possible with artificial intelligence as machine able to respond in natural language and have capability to learn and organize themselves.

Fifth generation is still in development stage

Computer Networks Basics and Network Topology

Computer network is an important chapter from exam point of view. This particular piece is my effort towards making this chapter a bearable one for you.

Given in point wise format, these are the points you should know from this chapter, the bare minimum and the absolute essential. Do not go to the exams without these! And as for the maximum knowledge – well, sky is the limit, my friend!

So we start:

COMPUTER NETWORKS

1. **_Computer Network_** is for aiding 'Data Communication', i.e., sending and receiving of data between terminals situated at different places.

2. There are 3 types of **_'Transmission Channels'_**, namely, *Simplex, Half Duplex and Full Duplex Channels*.

3. A(sender) → B(receiver) : is the **_simplex channel_**, where data transmission is in one way direction. Here the receiver can not send any communication back to the sender via the same channel.

4. **_Half Duplex channel_** – where the transmission of data is from both ends, but at any particular time only one is happening, either incoming or outgoing transmission. The diagram bellow shows a gap in space between the sender and receiver messages, to denote the gap in time where at one time only one message (either form the sender or from the receiver) will get transmitted.
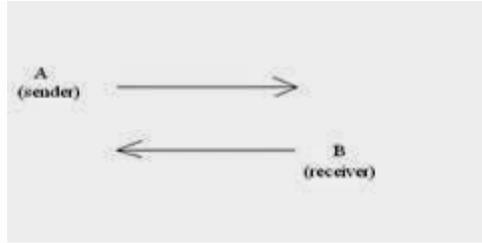
5. **_Full Duplex channel_**, is where the data gets transmitted in both directions at the same time, i.e., there is no time lag or delay in communication.
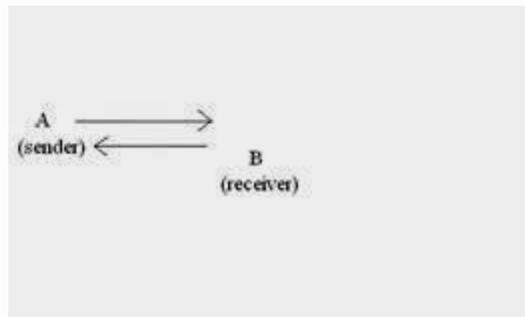

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NETWORK TOPOLOGY

6. There are 4 main types of 'Network Topology', namely, *Mesh, Star, Ring and Bus Network*.

7. **_Topology_** means the arrangement of various components of a network (such as server/hubs/nodes/links/information flow channels etc.), and depicts the structure of a network.

8. The following diagrammatic representation is of **_'Mesh Networking'_** – the small rectangular boxes are 'Nodes'.

In mesh network, each node is independent, and is used for high traffic transmission through multiple available routes. This is a fully connected network, where each node in the network to the other.
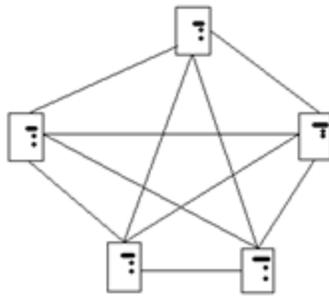
As you can see in the diagram, each node is connect to the other four, which is why this type of network is highly reliable for data transmission as there are more than one route for transmission.

Plus is a particular route fails – then the transmission can automatically switch to other available routes and the transmission will be successfully completed.

9. In '**_Star Network_**', there is a '**_Cental Node_**', which is also called the '**_Hub_**'. For your easy understanding, think of hub as a Server and the other nodes attached to it are the client nodes.
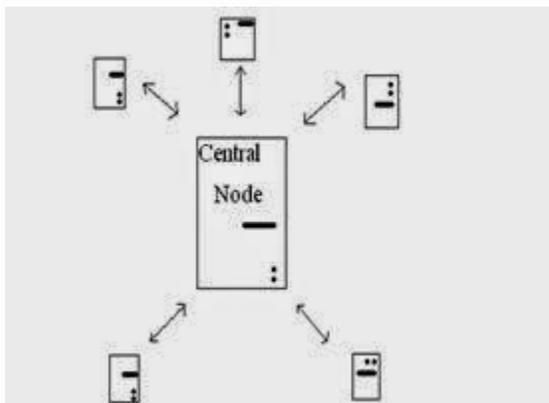

The communication between the clients takes place through the server. A client (sender) send information to the hub, the hub then transmits the information to the client (receiver) for whom the information was meant to be transmitted.

In this type of network, if the transmission line between the hub and a node fails, then that node will become isolated from the network.

And if the central node fails, then the whole network fails!

10. In '**_Ring Network_**' topology, each node is connected to two other nodes only. The data flow is usually one way in a ring network, and hence if any line/node fails then the entire network crumbles.
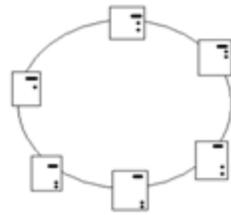
11. '**_Bus Network_** is the type of topology in which the nodes are connected by a single communication line. This single communication line is called a **bus**.
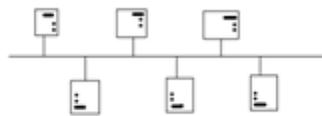
The bus networks are the simplest of networks, but it has a critical drawback. It can transmit from one node at a time, because of the single line of communication.

12. **_Node_** is a connection point where data transmission originates or ends.

NETWORK TERMINALS

13. **_Terminal_** is a computer network means a computer equipment, it could be anything – a computer, an ATM machine, the PNR and Train time requesting machines at railway stations.

14. **_Dumb Terminals_** are those terminals which cannot do any processing or storage of data. It is simply an input/output device wired into another computer. It takes the input, transmits the data to the computer (computers can process!) to which it is connected and then displays the output.

Examples: Like PNR status checking booth at Railway stations. They have a Cathode Ray Tube (Screen), a Keyboard, or screen with touch input and gives the output on the screen.

15. ***Intelligent Terminals*** is the kind of terminal which can do its own processing...which would mean it is fitted with a processor and has memory (storage) capacity and thus is actually a computer (but not the kind which looks like our PC!)

16. ***Smart Terminals*** have processing capacities and memory too, but lesser than intelligent terminals.

So the hierarchy would be (lowest to highest) – *Dumb – Smart – Intelligent Terminals*.

There you go guys computer network and its absolute basics – hope this was helpful!

Have a good day. Keep learning and keep sharing!