

6. Write any four internal DOS commands and its functions.

→ Any four internal DOS commands and its function are as listed below:-

i. DTR

ii. EXIT

iii. COPY

iv. MOVE

v. CLS.

(i) DTR → This command displays a list of files and sub directories from a directory with no files, additional file storage, file, data and time of modification of files etc.

(ii) EXIT → This command exists or close from the DOS or returns to windows application.

(iii) COPY → This command is used to make duplicate files from one location to another or at the same location by using different name.

(iv) MOVE → This command allows user to move the files from one location to another.

(v) CLS → This command is used to clear up the screen.

4. Describe the Function of Operating System.
→ The Functions of Operating System are as listed below:-
1. I/O Management 2) Command Interpreter.
3. Data Management 4) Memory management.
5. Process management 6) Device management.
7. File management 8) Time sharing.
9. Security 10) Deadlock prevention.
11. Interrupt Handling 12) Virtual storage.

1. I/O Management → Input/output management is essential to the operation of any computer. It allows the computer to interact and control access with peripheral devices such as a keyboard, mouse, terminals (like the modem and NEC card), disks, monitor and printer.

2. Data Management → The data management functions of an OS govern the input and output of data and their location, storage, and retrieval. It also is responsible for storing and retrieving information on disk drives and for the organization of that information on the drive.

3. Process management → In a multi-programming environment, the OS decides the order in which processes have access to the processor, and how much processing time each

- * Device driver → Device driver is system software required to operate a particular hardware.
Examples: driver of printer, graphics, sound.
2. Differentiate between 3rd and 4th generation Computer with examples.
- | | |
|--|--|
| Third Generation | Fourth Generation |
| i. The development of Integrated Circuits (IC) signaled the beginning of the third generation. | i) The invention of microprocessor chip marked the beginning of the fourth generation. |
| ii. Transistors were replaced with integrated circuit known popularly as chips. | ii) Semiconductor memories replaced magnetic core memories. |
| iii. High level language was developed. | iii) Large number of high level languages like COBOL, BASIC, PASCAL & C Language. |
| iv. Main memory was increased in the form of PROM and DRAM. | iv) Main memory was increased in the form of EPROM and SRAM. |
| v) For eg:- IBM 360, ICI-1900 | v) For eg:- Micral, IBM 5100, STAR 1000 etc. |

22
iii. Mainframe Computers → Mainframe computers are multi-user, multiprogramming and high-performance computers that operate at a very high speed, have very large storage capacity and can handle workload of many users.

iv. Super Computers → Supercomputers are the fastest and most expensive machines that have high processing and speed as compared to other computers. They capable of performing trillions of calculations per second.

5. What are the basic functions of OS?

→ The basic functions of OS are listed below:-

1. I/O Management 2) Command Interpreter
3. Data Management 4) Memory management
5. Process management 6) Device management
7. File management 8) Time sharing.
9. Security 10) Deadlock prevention.
11. Interrupt Handling.
12. Virtual storage.

(i) Data management → The data management functions of an OS govern the input and output of data and their location, storage, and retrieval. It also is responsible for storing and retrieving information on the disk drives for organization of that information.

10. What is computer virus? Write the different technique to remove the computer viruses from the computer.
→ The computer virus is a malicious program that self-replicates by copying itself to another program.

In other words, the computer virus spreads by itself into other executable code or documents. The purpose of creating a computer virus is to infect vulnerable systems, gain control and steal user sensitive data.

The different technique to remove the computer viruses from the computer are listed below:-

- i. Installing original anti-virus software from the reputed computer, update it and scan the computer regularly for viruses.
ii. Loading and installing software only from the original disk.
iii. Avoiding to use pirated CD or software.
iv. Avoiding to download any programs from the unknown website unless it is confirmed that it is virus free.
v. Avoiding to use malicious software.
vi. Avoiding opening junk or spam emails.
vii. Opening the e-mail attachments only after scanning.

8. Discuss about various cables used in networking.
→ The various cables used in networking are listed below:-
1. Coaxial cable.
2. shielded Twisted Pair (STP) Cable.
3. Fibre optic cable.
4. Unshielded Twisted Pair Cable.

(a) Coaxial Cable → This system is rarely used. Installing a coaxial cable is complex. The cable can resist signal obstruction. A plastic layer insulates the centre conductor and the braided metal.

(b) Shielded Twisted Pair Cable → It is mostly used in business installations. It is suitable for areas with risk to the electrical current and potential interference. Its external shield works as a ground. You can use the shielded twisted pair cable to expand the distance between cables.

(c) Fibre Optic Cable → It consists of several layers of protective materials that surround a central glass core. Fibre optic cable does not transmit electronic signals. Instead, it transmits light, removing the electrical obstruction problem.

18
8. Explain about the Generations and types of computer on the basis of size and on the basis of working principle.

→ The generations of computer are listed below:-
1. First Generation Computer (1945-1956 AD) → The first generation computer operated on the principle of thermionic emission. They used thermionic valves also known as vacuum tubes as CPU, magnetic drum for data storage, and machine language was used for giving instructions. The computers of this generation were very large in size called mainframe or room-sized computers. Their programming was a difficult and time-consuming.

2. Second Generation (1956-1964 AD) → The second generation of electronic computers began with the development of the transistor (electronic switching device). A transistor transfers electric signals across a resistor. The three Bell lab scientists, John Bardeen, Walter Brattain, and William Shockley, working for Bell labs invented the transistor in 1947 AD, which won Nobel Prize in 1956 AD. Transistors were highly reliable compared to tubes. Transistors were far more superior in performance on account of their miniature size, smaller power consumption, and heat production rate.

16
5. Diligence → The computer can perform repetitive tasks without being bored and never gets tired. Diligence means being constant and earnest in effort and application. It can continuously work for several hours or days after the data and programs are fed in it. Unlike human beings, a computer is free from tiredness, weakness, lack of concentration and monotony.

6. Reliability → The computer system is particularly master a lot of work without any mistakes and bisection. That's why they are widely used everywhere because of their reliability. On the other hand, unreliability can occur if the end-user feeds incorrect data and instructions, or faulty instructions for processing, this leads to faulty results. This is known as GIGO, i.e., Garbage In Garbage Out (GIGO).

7. Versatility → Computer can perform different tasks depending upon the different program fed to it, is known as versatility. It has a wide range of application areas i.e. it can do many types of jobs. It can perform operations ranging from simple mathematical calculations to highly complex and logical manipulations. Some of the applications areas of computers are in education, business, office-automation bank etc.

5. What are the precautions that should be applied to protect your computer from viruses?
→ The precautions that should be applied to protect our computer from viruses are:-

1. Installing original anti-virus software from the reputed computer, update it and scan the computer regularly for viruses.
2. Loading and installing software only from the original disk.
3. Avoiding to use pirated CD or software.
4. Avoiding to download any programs from the unknown website unless it is confirmed that it is virus free.
5. Avoiding to use malicious software.
6. Avoiding opening junk or spam emails.
7. Opening the e-mail attachments only from scanning.
8. Applying password protections and other security features.

6. Define Computer.
→ A computer can be defined as a multipurpose, programmable, electronic data processing device that is capable of accepting input, processing it, and producing information as output at enormous speed.