

Attempt All Questions:-

7. What is Computer Software? Describe the System Software in brief.
→ Computer Software is a collection of programs that instructs the computer to perform some specific operation.

System Software is hardware oriented software. It manages the hardware devices and creates the environment to use application software. It is the basic software required to make the hardware operate. It is provided by the hardware developer along with the hardware. Examples: Windows OS, Compiler, driver of Printer.

Different types of system software used are:

- Operating System.
- Language translators.
- Device drivers.

* Operating System → Operating system is a master program that manages the hardware and software resources of the computer and makes the computer to use. e.g.: Windows, Linux, UNIX.

* Language translator → Language translator translates program developed in either assembly or high level language into machine language and vice-versa.

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3. What is memory? Write the differences between RAM and ROM.
→ Memory is the part of the computer system that is used to store data or instruction (Program) temporarily and permanently.

.. The differences between RAM and ROM are:-

| RAM | ROM |
|--|---|
| i. RAM stands for random access memory. | ii) ROM stands for Read Only memory. |
| iii. It usually has a higher memory space than RAM. | iv) It usually has less memory space than RAM. |
| v. It is volatile in nature, i.e. data are lost when the power supply is switched off. | vi) It is non-volatile in nature and used for permanent storage. |
| vi. It allows both read and write operations. | vii) It allows only to read operation. |
| viii. It is usually expensive on per unit basis but while comparing on the basis of storage capacity RAM is cheaper. | ix) It is usually cheaper in terms of per unit basis but while comparing on the basis of storage capacity ROM is expensive. |
| x. Types of RAM are SRAM and DRAM. | xii) Types of ROM are PROM, EEPROM and EEPROM. |

5 process has. This function of OS is called process-scheduling. The process management allocates a processor to execute a chosen process.

4. Device management → An OS manages all device communication using their respective device-drivers. The device-driver is associated with an OS for their proper work and installed and configured on the computer. The device management allocates a device to a process.

5. Time sharing → The Time-sharing function of the OS is a technique that enables a number of users, located at various terminals, to use a particular CPU of the computer system at the same time. It is generally found in the network operating system.

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| 7 | HUB | Switch |
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| i. | A central device that connects multiple computers on a single network. | ii) A switch is a computer networking device that connects network segments or network devices together. |
| ii. | It operates at physical layer. | iii) It operates at datalink layer. |
| iii. | It cannot be used as a repeater. | iv) It can be used as a repeater. |
| iv. | Tt is not an intelligent device, so it is cheap. | v) SWITCH is an intelligent device, so it is an expensive. |
| v. | HUB simply broadcast the incoming packets. | vi) SWITCH uses switching table to find out the current destination. |
| vi. | Tt is a broadcast device. | vii) It is a point to point device. |
| vii. | It operates of OSI Model. | viii) It operates of OSI Model. |

9. Unshielded Twisted Pair Cable → It is mostly used for computer networking and conventional telephone. It is suitable for workgroups because of its good performance and flexibility. It has an outer insulating jacket that protects the cable from damage or physical stress. It is important to understand how the different types of networking cabling affect the other aspects of a network.

9. Write the features of spreadsheet package.
The features of spreadsheet package are:-

- Allows data entry, storage, calculations and presentation.
- Formatting of data for making it attractive by using tools like font, font color, font size.
- Simple computing operations like copy, cut, paste, find, replace.
- Storing data either in ascending or descending order on the basis of different fields.
- Provide various chart types and shapes like pie, bar, XY, stack bar, area, 3D pie.
- Data validation for setting data entry rules.
- The formula for calculations using cell address including mathematical, statistical, trigonometric etc.
- Support natural language formulas.

11. Define Computer.
→ A computer is an electronic device that accepts the raw data, operates them according to specified rules, produce information (output), and store the information for future use.

2. Explain different types of computer on the basis of size.

→ The different types of computer on the basis of size are listed below:-

- Micro Computers
- Mini Computers
- Mainframe Computers
- Super Computers.

(i) Micro Computers → Micro computers are small, low-cost and single user digital computer consisting of CPU, input unit, output unit, storage unit and software.

ii. Mini Computers → Mini computers are digital computers generally used in multi-user systems and having high processing speed and high storage capacity than microcomputers. Mini computers can support 4-2000 users simultaneously, these are used for real-time application in industries, research centers etc.

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| 13 | Word Processing Package | Spreadsheet Package. |
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| i. | Word Process provides Facility to create document. | ii) Spreadsheet provides the Facility of calculations. |
| ii. | Word process is used to create letters, application and reports etc. | iii) Spreadsheet is used to create salary sheets and balance sheet. |
| iii. | It provides a small number of predefined functions to manipulate data. | iv) It provides many predefined functions to manipulate data. |
| iv. | It does not provide the facility of automatic recalculation of data. | v) It provides the facility of recalculating data. The result changes automatically if the data is changed. |
| v. | The data in Word processor is inserted in documents. | v) The data in spreadsheet is inserted in work sheets. |

15. Explain the Features of Computer.
→ The Features of Computer are listed below:-

- Speed → The data processing speed of the electronic computer is very fast because the signals can pass at the speed of electricity which is near that of speed of light i.e. 2.997 × 10⁸ m/sec. Thus millions of calculations can be done in a second. Such speeds are beyond the comprehension of the human brain.

2. Accuracy → The accuracy of a computer is consistently high, and every calculation is performed with the same accuracy i.e. almost 100% accurate results are always the same as per design. The degree of accuracy of a particular computer depends upon its design.

3. Word length → Digital computer operates on binary digits (bit), a combination of 1 (one or high) and 0 (zero or low), which means all data or information are kept in a computer or its memory in terms of 0's and 1's. 8 bits is equal to one byte.

4. Automation → A computer is an automatic machine, capable of functioning automatically once the appropriate set of instructions (program) and data are provided to the computer. Once a task is initiated in a computer, it can proceed automatically.

17. 8. Storage capacity → A computer can store a huge amount of data. It has a data storage area, called memory. Any data stored in the memory can be retrieved at any time and at a very fast speed. The memory can be divided into primary memory and secondary storage. Primary memory is the working memory of the computer and is capable of sending and retrieving data at very high speed, whereas secondary storage is long-term memory and operates more slowly but capable of storing large amount of data. e.g.: Floppy disk, hard disk, magnetic tape disk and optical disk.

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